



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 171184

TO: Deborah Lambkin
Location: REM-5B09/5C18
Art Unit: 1626
November 22, 2005

Case Serial Number: 10/678331

From: P. Sheppard
Location: Remsen Building
Phone: (571) 272-2529

sheppard@uspto.gov

Search Notes

171184

Access DB# _____

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Deborah Komblum Examiner #: 71300 Date: 11/9/07
 Art Unit: 1626 Phone Number 302-0698 Serial Number: 10/678,331
 Mail Box and Bldg/Room Location: Rm 5309 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

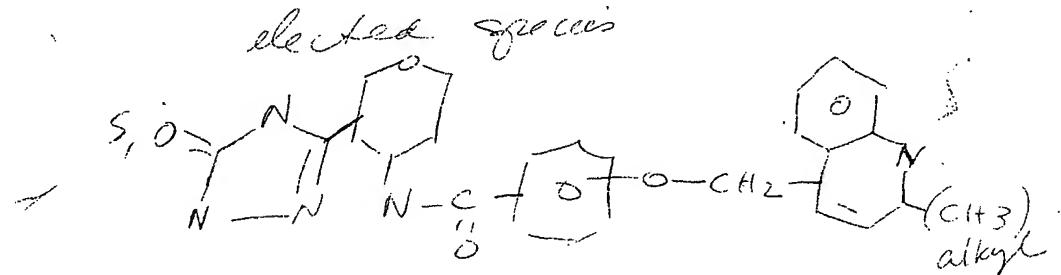
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: TRIAZOLEZONE & TRIAZOLETITION . . .

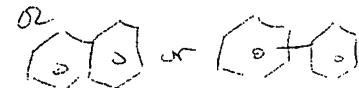
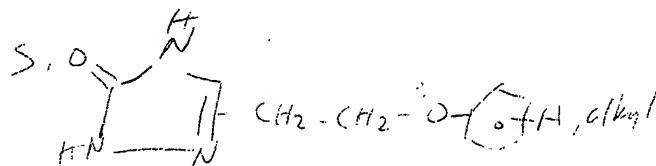
Inventors (please provide full names): B.W. King

Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.



surrogate compound



Thanks, Mr

STAFF USE ONLY

Searcher: S

Type of Search

Vendors and cost where applicable

NA Sequence (#) _____

STN _____

Searcher Phone #: _____

AA Sequence (#) _____

Dialog _____

Searcher Location: _____

Structure (#) _____

Questel/Orbit _____

Date Searcher Picked Up: _____

Bibliographic _____

Dr.Link _____

Date Completed: _____

Litigation _____

Lexis/Nexis _____

Searcher Prep & Review Time: _____

Fulltext _____

Sequence Systems _____

Clerical Prep Time: _____

Patent Family _____

WWW/Internet _____

Online Time: _____

Other _____

Other (specify) _____

Lambkin 10_678331- - History

=> d his ful

(FILE 'REGISTRY' ENTERED AT 15:26:07 ON 22 NOV 2005)

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L7 48105 SEA SSS FUL L5
L11 STR L9
L12 39 SEA SUB=L7 SSS FUL L11

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L22 50 SEA ABB=ON PLU=ON L21 AND PD=<OCTOBER 7, 2003
D STAT QUE
D IBIB ABS HITSTR L22 1-50

FILE HCAPLUS

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FILE COVERS 1907 - 22 Nov 2005 VOL 143 ISS 22
FILE LAST UPDATED: 21 Nov 2005 (20051121/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 21 NOV 2005 HIGHEST RN 868586-21-4
DICTIONARY FILE UPDATES: 21 NOV 2005 HIGHEST RN 868586-21-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

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Lambkin 10_678331- - History

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*****  
*  
* The CA roles and document type information have been removed from *  
* the IDE default display format and the ED field has been added, *  
* effective March 20, 2005. A new display format, IDERL, is now *  
* available and contains the CA role and document type information. *  
*  
*****
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Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Lambkin 10_678331

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 15:31:56 ON 22 NOV 2005
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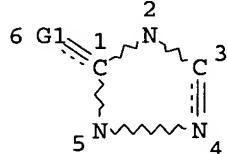
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New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

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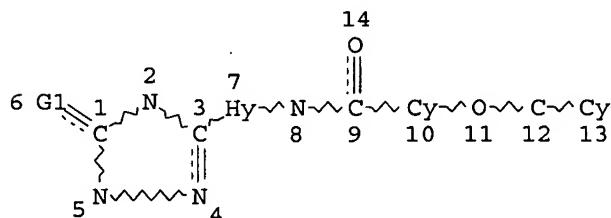
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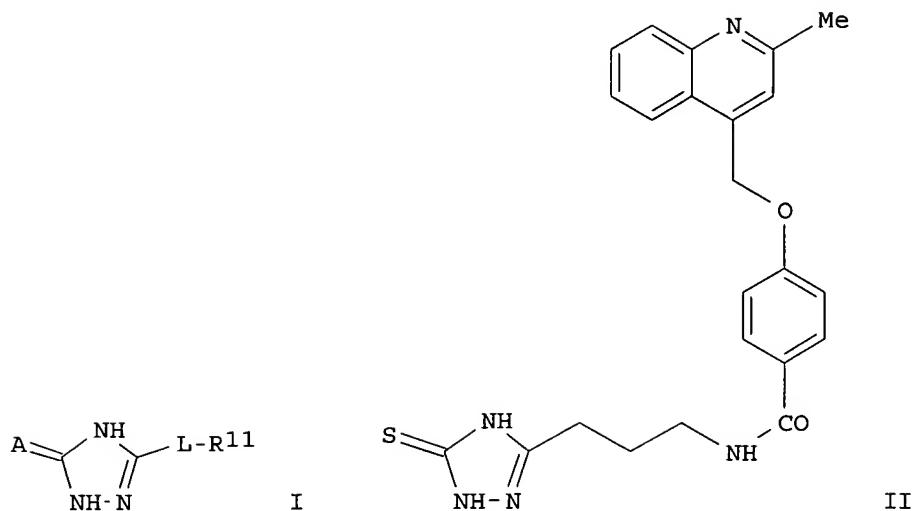


VAR G1=O/S
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 1
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L7 48105 SEA FILE=REGISTRY SSS FUL L5
L11 STR





AB The present application describes novel hydantoin derivs. (shown as I; A = O, S; L-R11 represents a very large variety of substituents and is defined in the claims; e.g. II) or pharmaceutically acceptable salt or prodrug forms thereof, which are useful as inhibitors of matrix metalloproteinases (MMP), TNF- α converting enzyme (TACE), aggrecanase, or a combination thereof. Some examples of I exhibit Ki's <10 μ M but individual data are not presented. Although the methods of preparation are not claimed, 37 example prepns. are included. For example, II was prepared in 4 steps (100, 66, 73 and 82%, resp.) starting with condensation of Et 4-aminobutyrate hydrochloride with 4-(2-methylquinolin-4-ylmethoxy)benzoyl chloride hydrochloride followed by base hydrolysis to the acid, followed by hydrazide formation with thiosemicarbazide followed by cyclization.

IT

- 681284-32-2P 681284-35-5P 681284-36-6P
- 681284-41-3P 681284-46-8P 681284-50-4P
- 681284-62-8P 681284-63-9P 681284-67-3P
- 681284-68-4P 681284-70-8P 681284-71-9P
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- 681284-99-1P 681285-00-7P 681285-02-9P
- 681285-03-0P 681285-05-2P 681285-06-3P
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- 681285-46-1P 681285-47-2P 681285-51-8P
- 681285-52-9P

RL: PAC (Pharmacological activity); **SPN:** (Synthetic preparation); **THU:** (Therapeutic use); **BIOL:** (Biological study); **PREP:** (Preparation); **USES:** (Uses)

(drug candidate; preparation of triazolone and triazolethione inhibitors of matrix metalloproteinases and/or TNF- α converting enzyme as anti-inflammatory agents)

RN 681284-32-2 HCPLUS

CN Benzamide, N-[(3S,4R)-3-(2,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)tetrahydro-2H-pyran-4-yl]-4-[(2-methyl-4-quinolinyl)methoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

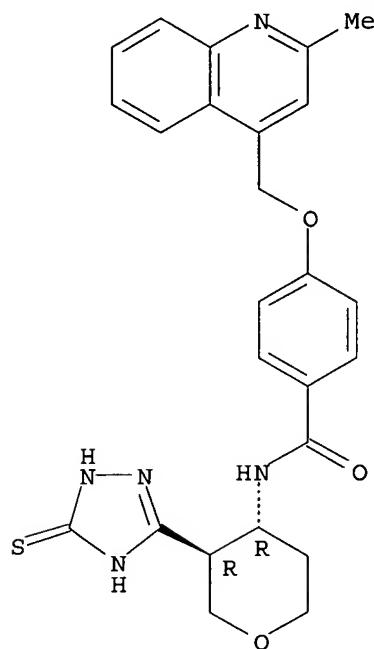
Lambkin 10_678331

yl)tetrahydro-2H-pyran-4-yl]-4-[(2-methyl-4-quinolinyl)methoxy]-, rel-, trifluoroacetate (9CI) (CA INDEX NAME)

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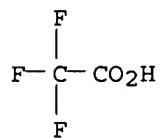
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CMF C25 H25 N5 O3 S

Relative stereochemistry.



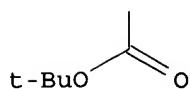
CM 2

CRN 76-05-1
CMF C2 H F3 O2

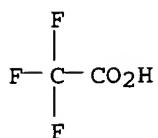


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Absolute stereochemistry.



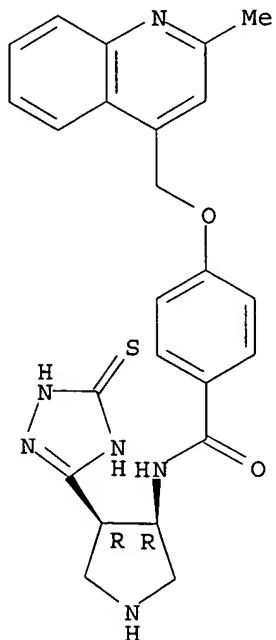
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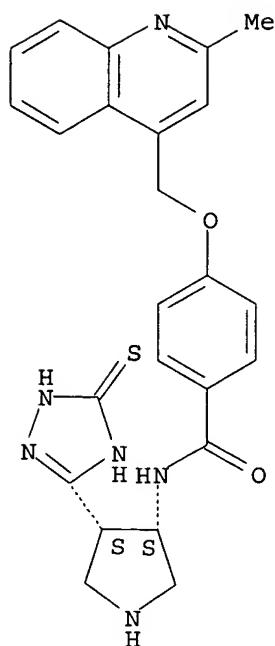
CRN 76-05-1
CMF C2 H F3 O2RN 681284-50-4 HCAPLUS
CN Benzamide, N-[(3R,4R)-4-(2,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-3-pyrrolidinyl]-4-[(2-methyl-4-quinolinyl)methoxy]-, rel-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 681284-49-1
CMF C24 H24 N6 O2 S

Relative stereochemistry.

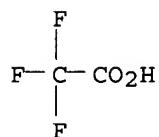




CM 2

CRN 76-05-1

CMF C2 H F3 O2

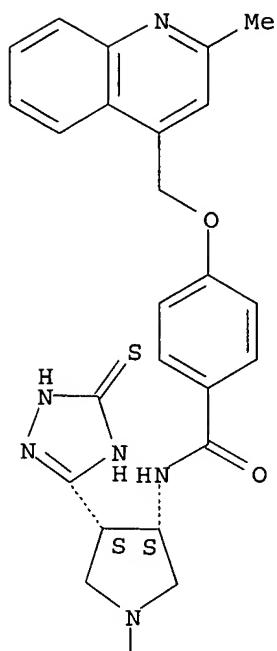


RN 681284-67-3 HCAPLUS

CN Benzamide, N-[(3S,4S)-1-acetyl-4-(2,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-3-pyrrolidinyl]-4-[(2-methyl-4-quinolinyl)methoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

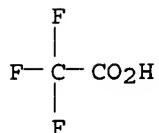


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CM 2

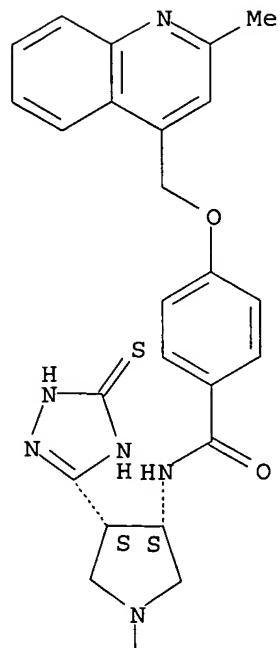
CRN 76-05-1
 CMF C₂ H F₃ O₂



RN 681284-70-8 HCAPLUS
 CN Benzamide, N-[(3S,4S)-4-(2,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-1-propyl-3-pyrrolidinyl]-4-[(2-methyl-4-quinoliny)methoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

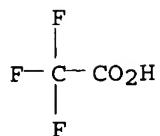


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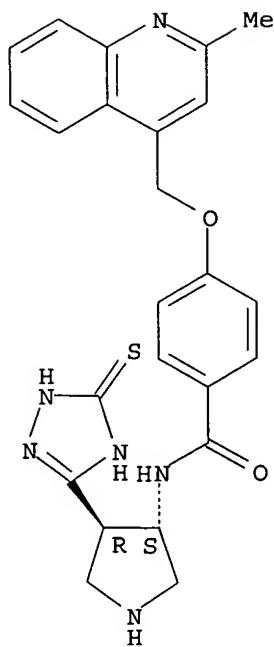
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CRN 76-05-1
CMF C2 H F3 O2



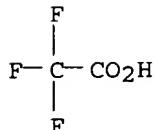
RN 681284-80-0 HCPLUS
CN Benzamide, N-[(3R,4S)-4-(2,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-3-pyrrolidinyl]-4-[(2-methyl-4-quinolinyl)methoxy]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



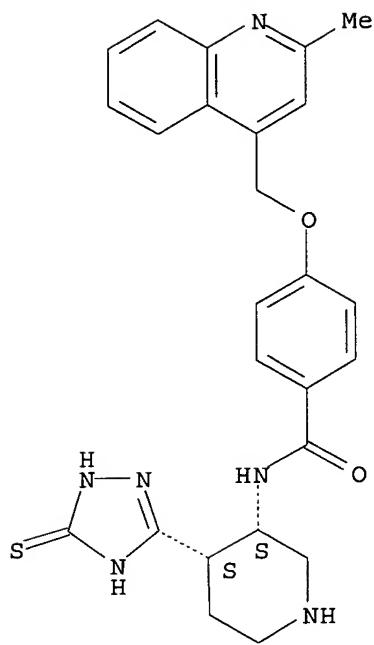
CM 2

CRN 76-05-1
CMF C2 H F3 O2



RN 681284-91-3 HCAPLUS
CN 1-Piperidinecarboxylic acid, 4-(2,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-3-[(4-[(2-methyl-4-quinolinyl)methoxy]benzoyl)amino]-, 1,1-dimethylethyl ester, (3S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 681285-00-7 HCAPLUS

CN Benzamide, N-[(3S,4S)-4-(2,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-3-piperidinyl]-4-[(2-methyl-4-quinolinyl)methoxy]-, trifluoroacetate (9CI)
(CA INDEX NAME)

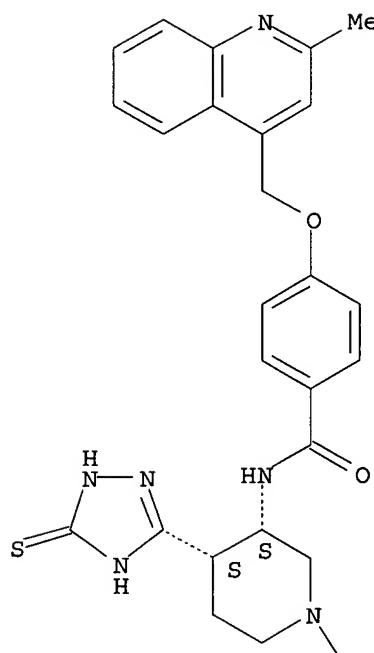
CM 1

CRN 681284-99-1

CMF C25 H26 N6 O2 S

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



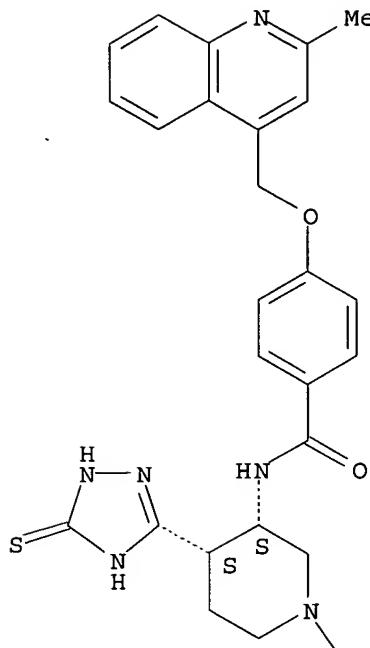
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CN Benzamide, N-[(3S,4S)-1-acetyl-4-(2,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-3-piperidinyl]-4-[(2-methyl-4-quinolinyloxy]-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 681285-02-9
CMF C27 H28 N6 O3 S

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

Pr-n

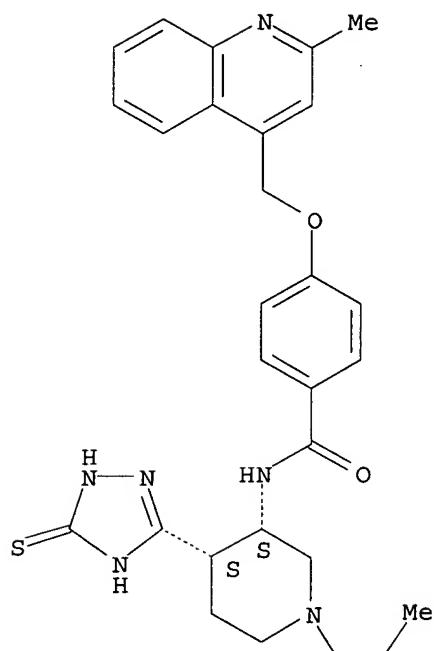
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CN Benzamide, N-[(3S,4S)-4-(2,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-1-propyl-3-piperidinyl]-4-[(2-methyl-4-quinolinyl)methoxy]-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

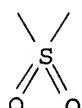
CRN 681285-05-2
CMF C28 H32 N6 O2 S

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RN 681285-17-6 HCAPLUS

CN Benzamide, N-[(3S,4S)-4-(2,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-1-(methylsulfonyl)-3-piperidinyl]-4-[(2-methyl-4-quinolinyl)methoxy]-, trifluoroacetate (9CI) (CA INDEX NAME)

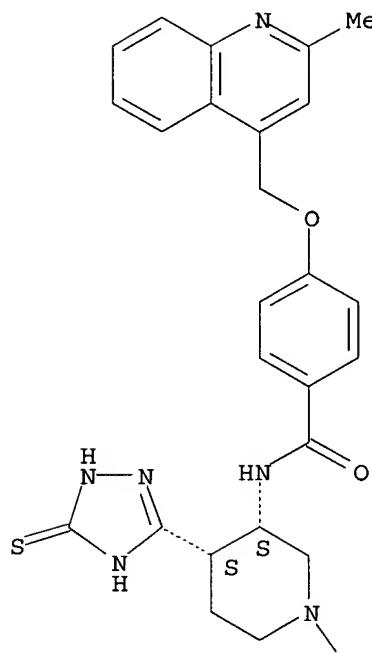
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CRN 681285-16-5

CMF C26 H28 N6 O4 S2

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

Pr-i

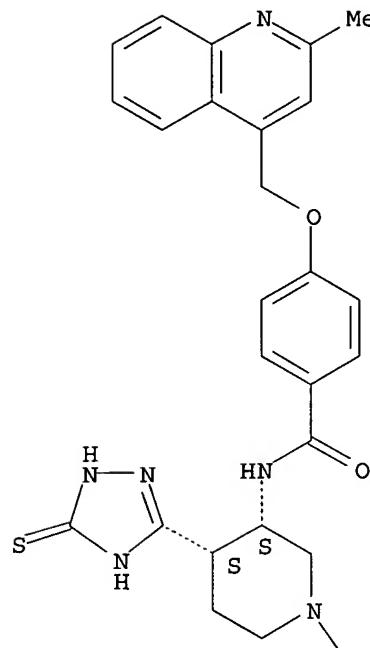
RN 681285-22-3 HCPLUS
 CN Benzamide, N-[(3S,4S)-4-(2,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-1-(1-methylethyl)-3-piperidinyl]-4-[(2-methyl-4-quinolinyl)methoxy]-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 681285-21-2
 CMF C28 H32 N6 O2 S

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

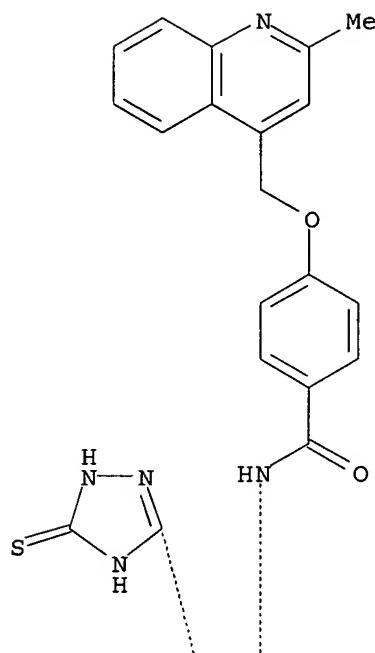


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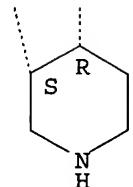
CN Benzamide, N-[(3S,4R)-3-(2,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-4-piperidinyl]-4-[(2-methyl-4-quinoliny)methoxy] - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

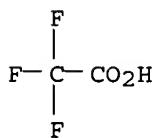


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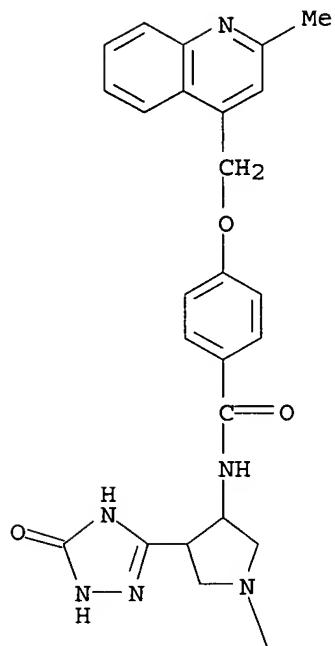
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CRN 76-05-1
CMF C2 H F3 O2

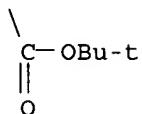


RN 681285-43-8 HCAPLUS
CN 1-Pyrrolidinecarboxylic acid, 3-[(2,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl)-4-[(4-[(2-methyl-4-quinolinyl)methoxy]benzoyl)amino]-1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

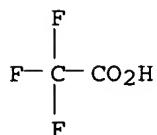


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CM 2

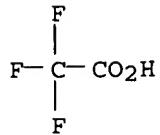
CRN 76-05-1
CMF C2 H F3 O2



RN 681285-46-1 HCPLUS
CN Benzamide, N-[3-(2,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl)tetrahydro-2H-pyran-4-yl]-4-[(2-methyl-4-quinoliny)methoxy]- (9CI) (CA INDEX NAME)

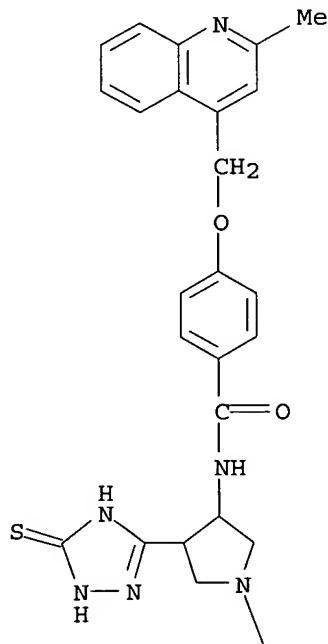
CM 2

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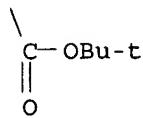


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CN 1-Pyrrolidinecarboxylic acid, 3-(2,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-4-[[4-[(2-methyl-4-quinolinyl)methoxy]benzoyl]amino]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

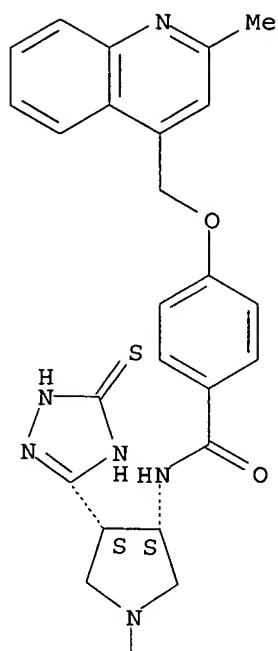


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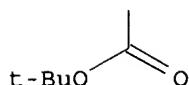


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PAGE 1-A



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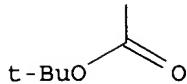


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(CA INDEX NAME)

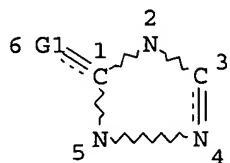
Absolute stereochemistry.

PAGE 2-A



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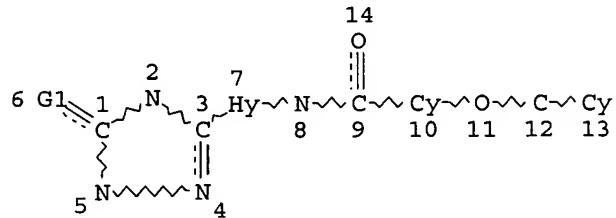
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L5 STR



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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 1
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L7 48105 SEA FILE=REGISTRY SSS FUL L5
L11 STR



VAR G1=O/S
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 14

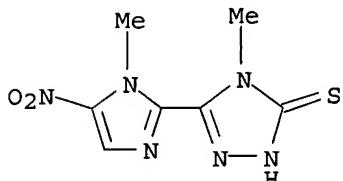
STEREO ATTRIBUTES: NONE
L12 39 SEA FILE=REGISTRY SUB=L7 SSS FUL L11
L13 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L12
L17 STR

significant effects against *Bacillus subtilis* at MIC ranges of 0.5-1 µg/mL and moderate effects against *Staphylococcus aureus*.

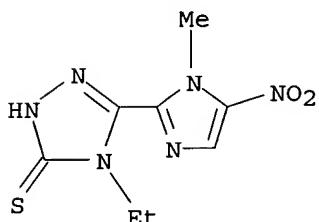
IT 590367-76-3P 590367-77-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and in vitro antimicrobial and antifungal evaluation of 5-(1-methyl-5-nitro-2-imidazolyl)-4H-1,2,4-triazoles)

RN 590367-76-3 HCAPLUS

CN 3H-1,2,4-Triazole-3-thione, 2,4-dihydro-4-methyl-5-(1-methyl-5-nitro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)



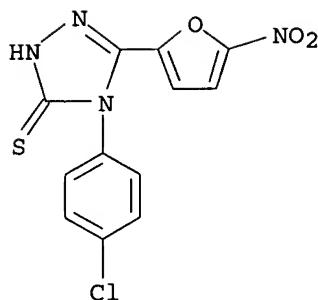
RN 590367-77-4 HCAPLUS
 CN 3H-1,2,4-Triazole-3-thione, 4-ethyl-2,4-dihydro-5-(1-methyl-5-nitro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 2 OF 50 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:5774 HCAPLUS
 DOCUMENT NUMBER: 138:66658
 TITLE: Novel nitrofuran-containing heterocyclic compounds and uses thereof
 INVENTOR(S): Magee, Andrew S.; Roy, Aloka; Moe, Scott T.; Griffith, Jim P.; Ala, Paul J.; Ali, Janid; Clement, Jacob J.; Navia, Manuel
 PATENT ASSIGNEE(S): Essential Therapeutics, Inc., USA; Pliva D.D.
 SOURCE: PCT Int. Appl., 50 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003000255	A1	20030103	WO 2002-US20387	20020625 <-
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 3 OF 50 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:217205 HCAPLUS

DOCUMENT NUMBER: 137:352962

TITLE: Synthesis of some new triazoles as potential antifungal agents

AUTHOR(S): Fahmy, Hesham T. Y.

CORPORATE SOURCE: Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Alexandria, Alexandria, Egypt

SOURCE: Bollettino Chimico Farmaceutico (2001), 140(6), 422-427

CODEN: BCFAAI; ISSN: 0006-6648

PUBLISHER: Societa Editoriale Farmaceutica

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:352962

AB The rise in the incidence of fungal infections over the past two decades, particularly those caused by opportunistic pathogens in immune-compromised patients, has strengthened the need for new antifungal drugs. New triazole derivs. were synthesized and evaluated for their in-vitro antifungal activities against three species of fungi. Most of the prepared compds. showed good antifungal activity. Three compds. exhibited pronounced activity against Cryptococcus neoformans with MIC less than 12.5 g/mL.

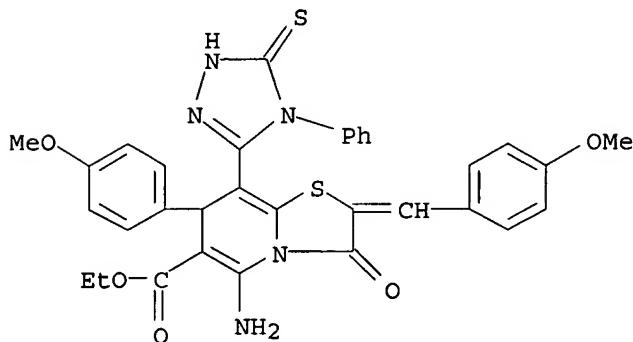
IT 474971-94-3P 474971-99-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and antifungal activity of substituted triazoles)

RN 474971-94-3 HCAPLUS

CN 7H-Thiazolo[3,2-a]pyridine-6-carbonitrile, 5-amino-7-(4-chlorophenyl)-2-[(4-chlorophenyl)methylene]-8-(4,5-dihydro-4-phenyl-5-thioxo-1H-1,2,4-triazol-3-yl)-2,3-dihydro-3-oxo- (9CI) (CA INDEX NAME)

phenyl-5-thioxo-1H-1,2,4-triazol-3-yl)-2,3-dihydro-7-(4-methoxyphenyl)-2-[(4-methoxyphenyl)methylene]-3-oxo-, ethyl ester (9CI) (CA INDEX NAME)



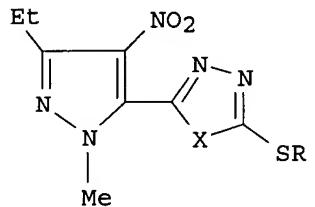
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 4 OF 50 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2001:693264 HCAPLUS
 DOCUMENT NUMBER: 135:257269
 TITLE: Preparation of N-heterocyclyl amide compounds as 5-HT antagonists
 INVENTOR(S): Yamada, Akira; Tomishima, Masaki; Hayashida, Hisashi; Imanishi, Masashi; Spears, Glen W.; Ito, Kiyotaka; Takahashi, Fumie; Miyake, Hiroshi
 PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 239 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001068585	A1	20010920	WO 2001-JP1993	20010313 <-
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001041128	A5	20010924	AU 2001-41128	20010313 <-
EP 1264820	A1	20021211	EP 2001-912338	20010313 <-
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004087798	A1	20040506	US 2002-221554	20021227
PRIORITY APPLN. INFO.:			JP 2000-70127	A 20000314
			JP 2000-305947	A 20001005
			WO 2001-JP1993	W 20010313

OTHER SOURCE(S): CASREACT 135:257269; MARPAT 135:257269
 AB Amides compds. represented by the general formula R1-A-X-NHCO-Y-R2
 [wherein R1 is an optionally substituted heterocyclic group or optionally substituted phenyl; R2 is optionally substituted fused Ph, optionally

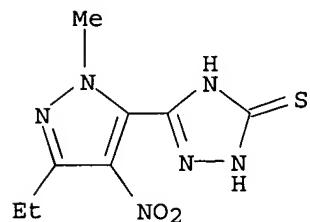
ACCESSION NUMBER: 2001:491585 HCPLUS
 DOCUMENT NUMBER: 135:210994
 TITLE: Synthesis of pyrazolylheterocycles and their fungicidal activities
 AUTHOR(S): Zhao, Wei-Guang; Chen, Han-Song; Li, Zheng-Ming; Han, Yu-Fen; Yan, Han; Lai, Jun-Ying; Wang, Su-Hua
 CORPORATE SOURCE: Institute of Elemento-organic Chemistry, Nankai University, Tianjin, 300071, Peop. Rep. China
 SOURCE: Gaodeng Xuexiao Huaxue Xuebao (2001), 22(6), 939-942
 CODEN: KTHPDM; ISSN: 0251-0790
 PUBLISHER: Gaodeng Jiaoyu Chubanshe
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 OTHER SOURCE(S): CASREACT 135:210994
 GI



AB Title compds. I (R = CH₃, CH₃CH₂, CH₂CH:CH₂, CH₂CO₂CH₂CH₃, CH₂C₆H₅; X = O, S, NH) were prepared from 1-methyl-3-ethyl-4-nitropyrazolylcarboxylic acid. The structures of all new compds. were confirmed by ¹H NMR and elementary anal. Their fungicidal activity was evaluated against Rhizoctonia solani. Structure-activity relationships for the screened compds. were evaluated and discussed. It was found that some compds. showed a higher fungicidal activity and systematic activity.

IT 358641-26-6P 358641-27-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (synthesis and fungicidal activities of pyrazolylheterocycles)

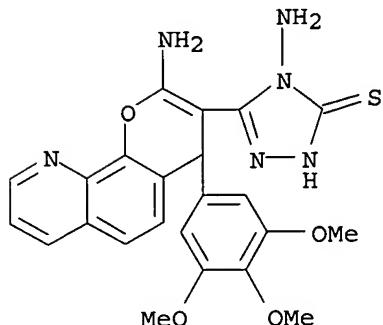
RN 358641-26-6 HCPLUS
 CN 3H-1,2,4-Triazole-3-thione, 5-(3-ethyl-1-methyl-4-nitro-1H-pyrazol-5-yl)-1,2-dihydro- (9CI) (CA INDEX NAME)



RN 358641-27-7 HCPLUS
 CN 3H-1,2,4-Triazole-3-thione, 5-(3-ethyl-1-methyl-4-nitro-1H-pyrazol-5-yl)-2,4-dihydro-4-phenyl- (9CI) (CA INDEX NAME)

reaction of the carboxyhydrazide with Ph isothiocyanate, acetylacetone, and benzoylacetone resulted in the formation of II and III (R = Me, Ph), resp. Et carbazate as a typical mesophile reacted with I (R = COOEt) to afford a fused tetracyclic product, a triazepinopyranoquinoline, via cyclization of the initially formed hydrazide. Among sixteen compds. screened against E. coli and S. aureus, two compds. show a high order of antibacterial activity against both bacteria. IV is strongly potent against *Staphylococcus aureus*.

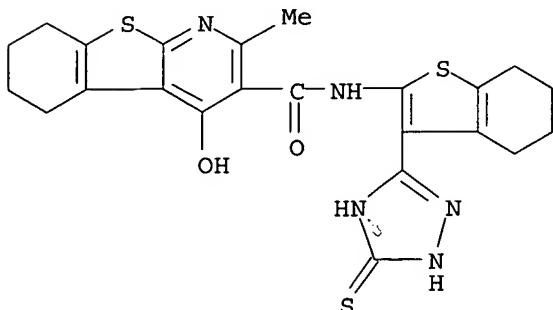
IT 389636-95-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and antibacterial activity of 4H-pyrano[3,2-h]quinolines and fused derivs.)
 RN 389636-95-7 HCPLUS
 CN 3H-1,2,4-Triazole-3-thione, 4-amino-5-[2-amino-4-(3,4,5-trimethoxyphenyl)-4H-pyrano[3,2-h]quinolin-3-yl]-2,4-dihydro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 7 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2001:334876 HCPLUS
 DOCUMENT NUMBER: 135:122486
 TITLE: Heteroaromatization with ketene dithioacetals: Part I. Synthesis of some novel 5-amino-1-(1,3,4-thiadiazol-2-yl) and 1-(1,3,4-thiadiazin-2-yl)pyrazole-4-carbonitriles
 AUTHOR(S): Hassan, Saber M.; Emam, Hussein A.; Abdelall, Mahmoud M.
 CORPORATE SOURCE: Chemistry Department, Faculty of Science, Al-Azhar University, Cairo, 11884, Egypt
 SOURCE: Journal of Chemical Research, Synopses (2000), (12), 544-545, 1301-1315
 CODEN: JRPSDC; ISSN: 0308-2342
 PUBLISHER: Science Reviews Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 135:122486
 AB 5-Amino-3-methylthio-1-(1,3,4-thiadiazol-2-yl) and 1-(1,3,4-thiadiazin-2-yl)pyrazole-4-carbonitriles were prepared from 5-aminopyrazoles using ketene dithioacetals as starting materials. For example, (MeS)2C:C(CN)2 and (H2NNH)2C:S refluxed in EtOH gave 75% 1-(5-amino-4-cyano-3-methylthiopyrazol-1-yl)carbothiohydrazide (2a); 2a with PhCO2H and POCl3 gave 65% 5-benzoylamino-3-methylthio-1-(5-phenyl-1,3,4-thiadiazol-2-yl)pyrazole-4-carbonitrile. 2A, chloroacetic acid and NaOAc in refluxing EtOH gave 66% 5-amino-3-methylthio-1-(5-oxo-1,3,4-thiadiazin-2-yl)pyrazole-

CN [1]Benzothieno[2,3-b]pyridine-3-carboxamide, N-[3-(2,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-4,5,6,7-tetrahydrobenzo[b]thien-2-yl]-5,6,7,8-tetrahydro-4-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 9 OF 50 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:631584 HCAPLUS

DOCUMENT NUMBER: 132:49927

TITLE: Synthesis, characterization and evaluation of the activity of ten mesoionic compounds against microorganisms

AUTHOR(S): De Athayde-Filho, Petronio Filgueiras; Miller, Joseph; Simas, Alfredo Mayall.; De Sena, Kesia Xisto da Fonseca Ribeiro; Chiappeta, Alda de Andrade

CORPORATE SOURCE: Departamento de Quimica, Universidade Federal Rural de Pernambuco, Recife-PE, 52.171-030, Brazil

SOURCE: Acta Farmaceutica Bonaerense (1999), 18(1), 17-22

CODEN: AFBODJ; ISSN: 0326-2383

PUBLISHER: Colegio de Farmaceuticos de la Provincia de Buenos Aires

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Three mesoionic 1,3,4-thiadiazolium-2-thiolates and seven 1,3,4-triazolium-2-thiol chlorides have been synthesized and tested for activity against a range of microorganisms. The chemical structures were confirmed by elemental anal., IR, mass, ¹H and ¹³C NMR spectrometry. The biol. tests indicate that the compds. have substantial activity against Gram-pos. and alc.-acid-resistant bacteria; moderate activity against yeasts and little activity against other fungi and are inactive against Gram-neg. bacteria.

IT 187875-14-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and bactericidal and fungicidal activity of thiadiazoliumthiolates and triazoliumthiol chlorides)

RN 187875-14-5 HCAPLUS

CN 1H-1,2,4-Triazolium, 4,5-dihydro-3-(5-nitro-2-furanyl)-2,4-diphenyl-5-thioxo-, chloride (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

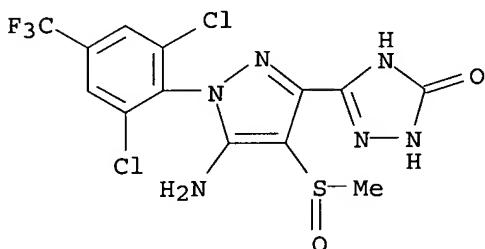
AB The title compds. [I; R1 = II-IV (R1a = H, alkyl, a lone pair of electrons; R1b = alkyl, aryl; X = O, NH, N(alkyl); Q = CR8R9, C(:Y), etc.; R8, R9 = H, alkyl, aryl, etc.; Y = O, S; Z = alkyl, aryl; W = H, alkyl, alkenyl, etc.; V = H, alkyl, CN, etc.); R2 = alkyl, haloalkyl, SOnR2a (R2a = alkyl, alkenyl, alkynyl, etc.); R3 = H, halo, alkyl, etc.; R4, R5, R7 = H, halo, alkyl; R6 = halo, haloalkyl, haloalkoxy, etc.; M = C(halo), C(Me), N, etc.], having pesticidal activity, were prepared. Thus, reaction of 5-amino-1-(2,6-dichloro-4-trifluoromethylphenyl)-4-methylsulfinyl-3-[3-(1-amidoxime)lpyrazole (preparation given) with trifluoroacetic anhydride in dioxane afforded the title compound V which showed insecticidal activity in one or more of the evaluation methods (described in patent), with particularly good activity in the systemic tests.

IT 223582-94-3P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of pesticidal 3-substituted arylpyrazoles)

RN 223582-94-3 HCPLUS

CN 3H-1,2,4-Triazol-3-one, 5-[5-amino-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-4-(methylsulfinyl)-1H-pyrazol-3-yl]-1,2-dihydro-(9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 11 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:424251 HCPLUS

DOCUMENT NUMBER: 129:95500

TITLE: Preparation of 2-(1,2,4-triazol-3-ylthio)-, 2-(5-tetrazolylthio)-, 2-(1,3,4-thiadiazol-2-ylthio)thiazole compounds and methods of modulating signal transduction

INVENTOR(S): Tang, Peng C.; Ramphal, John Y.; Harris, G. Davis, Jr.; Nematalla, Asaad S.

PATENT ASSIGNEE(S): Sugen, Inc., USA

SOURCE: PCT Int. Appl., 175 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----

cancer, colon cancer, or epidermoid cancer, and diabetes mellitus. Thus, 2-bromo-5-nitrothiazole was condensed with 4-[4-(4,5-dichloroimidazol-1-yl)phenyl]-2-mercaptopurine at room temperature for 24 h to give the title compound, 4-(imidazolylphenyl)-2-(thiazolylthio)purine (II). In a phosphotyrosine enzyme linked immunosorbent assay, II inhibited dephosphorylation of phosphotyrosine residues on insulin receptor in NIH3T3 cells engineered to over-express the human insulin receptor (H25 cells) with EC₅₀ (50% increase in the amount of phosphotyrosine over the control) of 3 μM.

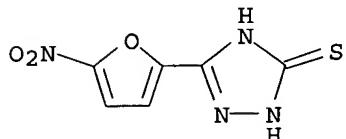
IT 57672-16-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of thiazole compds. modulating signal transduction as tyrosine phosphatase inhibitors for treatment of diseases)

RN 57672-16-9 HCPLUS

CN 3H-1,2,4-Triazole-3-thione, 1,2-dihydro-5-(5-nitro-2-furanyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 12 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:391083 HCPLUS

DOCUMENT NUMBER: 129:175593

TITLE: Synthesis, antifungal and antibacterial activity of substituted 1,2,4-triazoles

AUTHOR(S): Pourmorad, F.; Shafiee, A.

CORPORATE SOURCE: Department of Chemistry, Faculty of Pharmacy, The Medical Sciences University of Tehran, Tehran, Iran

SOURCE: Journal of Sciences, Islamic Republic of Iran (1998), 9(1), 30-33

CODEN: JSIIEN; ISSN: 1016-1104

PUBLISHER: National Center for Scientific Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The reaction of readily available 1-methyl-4-nitropyrrole-2-carboxylic acid with thionyl chloride afforded the corresponding carbonyl chloride. The reaction of the latter with thiosemicarbazides yielded 1-(1-methyl-4-nitropyrrole-2-carbonyl)thiosemicarbazides which cyclized in basic medium to 5-(1-methyl-4-nitropyrrole-2-yl)-2,4-dihydro-3H-1,2,4-triazole-3-thione derivs. Alkylation the latter and subsequent oxidation of (pyrrolyl)-1,2,4-triazoles. The antibacterial and antifungal activities of these against a number of microorganisms were determined. Only two compds.

had

moderate activity against Aspergillus niger.

IT 211626-82-3P 211626-83-4P 211626-84-5P

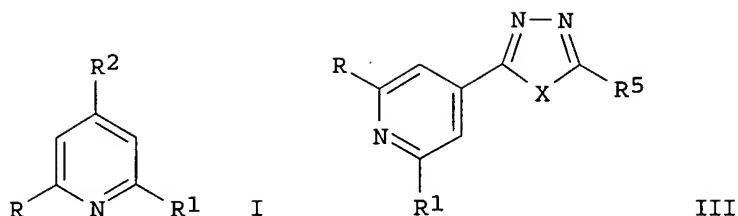
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and antifungal and antibacterial activity of (pyrrolyl)-1,2,4-triazoles)

RN 211626-82-3 HCPLUS

CN 3H-1,2,4-Triazole-3-thione, 2,4-dihydro-5-(1-methyl-4-nitro-1H-pyrrol-2-yl)-4-phenyl- (9CI) (CA INDEX NAME)

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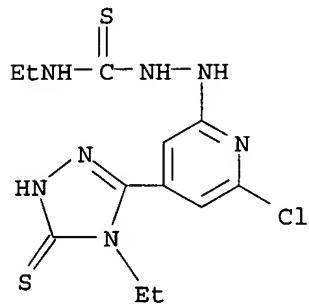
AB Condensation of pyridines I ($R = R_1 = OH$, $R = Cl$, $R_1 = NHNH_2$, $R_2 = CONHNH_2$) (II) with R₃CHO (R₃ = Ph, 2,4-(OH)C₆H₃, 2-thienyl, 4-pyridyl, 4-Me₂NC₆H₄) gave 35-87% I (R , R_1 = same as above, $R_2 = CONHN:CHR_3$) and reactions of II with R₄NCX (R₄ = Ph, Et; X = O, S) gave 31-89% I ($R = Cl$, OH; $R_1 = OH$, $NHNHC(X)NHR_4$, $R_2 = CONHNHC(X)NHR_4$), which cyclized to give 38-68% III ($R = Cl$, OH; $R_1 = OH$, $NHNHC(X)NHR_4$, $R_5 = XH$, NHR_4 , X = O, S, NR₄). Compds. I ($R = R_1 = OH$, $R_2 = CONHN:CHPh$) and III ($R = R_1 = OH$, $R_5 = SH$, X = NET) were more effective as bactericides against *Bacillus subtilis* than ampicillin.

IT 197902-02-6P

1979-02-02-01
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and microbicidal activity of)

RN 197902-02-6 HCAPLUS

CN Hydrazinecarbothioamide, 2-[6-chloro-4-(4-ethyl-4,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-2-pyridinyl]-N-ethyl- (9CI) (CA INDEX NAME)



IT 197901-99-8P 197902-00-4P 197902-03-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 197901-99-8 HCAPLUS

CN Hydrazinecarboxamide, 2-[6-chloro-4-(4-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl)-2-pyridinyl]-N-ethyl- (9CI) (CA INDEX NAME)

CORPORATE SOURCE: Dep. Medicinal Chem., Fac. Pharmacy, Univ. Mansoura, Mansoura, 35516, Egypt

SOURCE: Qatar University Science Journal (1994), 14 (Spec. Issue), 55-60
CODEN: QUSJEV; ISSN: 1023-8948

PUBLISHER: University of Qatar, Faculty of Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A series of thiazole derivs. bearing amino, acetamido or thioureido synthons at position 2 and thiosemicarbazone or 1,2,4-triazolethione moieties at position 4 have been synthesized and evaluated for their antimicrobial and antitumor activities. Some of the tested compds. proved to possess a remarkable antitumor antibiotic activity. The antimicrobial potency is found mainly to be against Gram pos. bacteria. The detailed synthesis, spectroscopic, and biol. data are reported.

IT 157521-62-5P 157521-63-6P 157521-64-7P

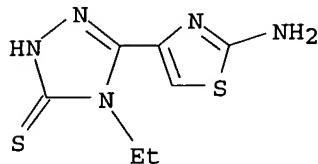
157521-65-8P 157521-66-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and antimicrobial and antitumor activities of thiazoles)

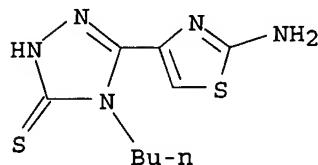
RN 157521-62-5 HCPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-(2-amino-4-thiazolyl)-4-ethyl-2,4-dihydro- (9CI) (CA INDEX NAME)



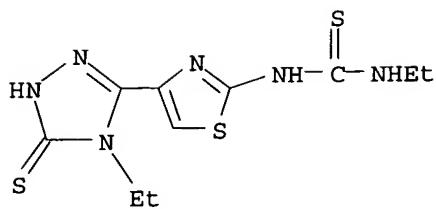
RN 157521-63-6 HCPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-(2-amino-4-thiazolyl)-4-butyl-2,4-dihydro- (9CI) (CA INDEX NAME)

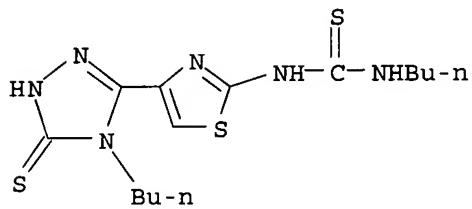


RN 157521-64-7 HCPLUS

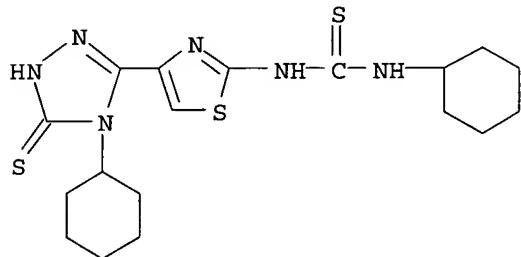
CN 3H-1,2,4-Triazole-3-thione, 5-(2-amino-4-thiazolyl)-4-cyclohexyl-2,4-dihydro- (9CI) (CA INDEX NAME)



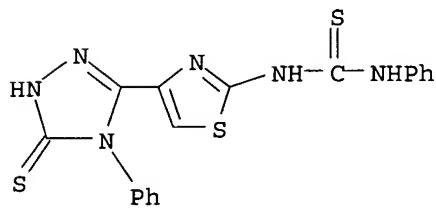
RN 157521-73-8 HCAPLUS
CN Thiourea, N-butyl-N'-[4-(4-butyl-4,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-2-thiazolyl]- (9CI) (CA INDEX NAME)



RN 157521-74-9 HCAPLUS
CN Thiourea, N-cyclohexyl-N'-[4-(4-cyclohexyl-4,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-2-thiazolyl]- (9CI) (CA INDEX NAME)



RN 157521-75-0 HCAPLUS
CN Thiourea, N-[4-(4,5-dihydro-4-phenyl-5-thioxo-1H-1,2,4-triazol-3-yl)-2-thiazolyl]-N'-phenyl- (9CI) (CA INDEX NAME)

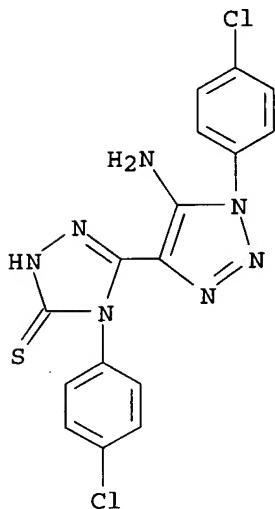


RN 157521-76-1 HCAPLUS
CN Thiourea, N-(4-fluorophenyl)-N'-(4-[4-(4-fluorophenyl)-4,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl]-2-thiazolyl)- (9CI) (CA INDEX NAME)

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation of)

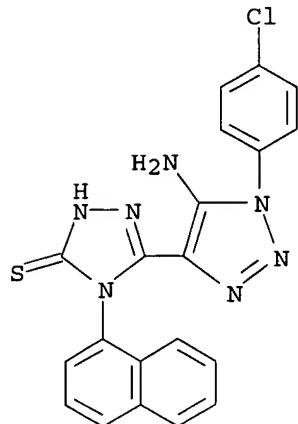
RN 188559-81-1 HCPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-[5-amino-1-(4-chlorophenyl)-1H-1,2,3-triazol-4-yl]-4-(4-chlorophenyl)-2,4-dihydro- (9CI) (CA INDEX NAME)



RN 188559-85-5 HCPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-[5-amino-1-(4-chlorophenyl)-1H-1,2,3-triazol-4-yl]-2,4-dihydro-4-(1-naphthalenyl)- (9CI) (CA INDEX NAME)



IT 188559-80-0P 188559-82-2P 188559-84-4P

188559-86-6P 188559-87-7P 188559-88-8P

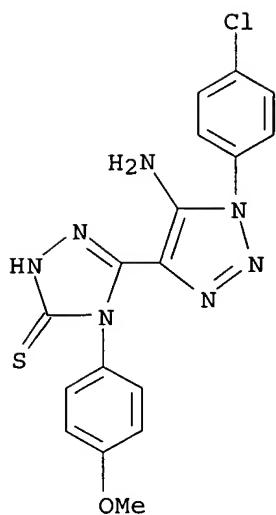
188559-89-9P 188559-90-2P 188559-91-3P

188559-92-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

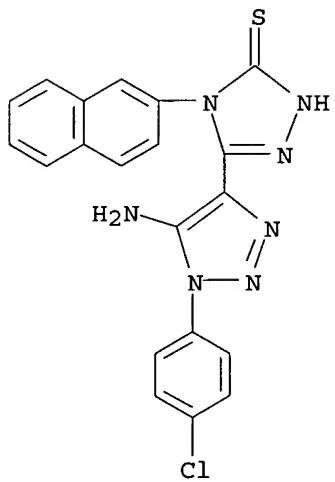
RN 188559-80-0 HCPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-[5-amino-1-(4-chlorophenyl)-1H-1,2,3-triazol-4-yl]-2,4-dihydro-4-phenyl- (9CI) (CA INDEX NAME)



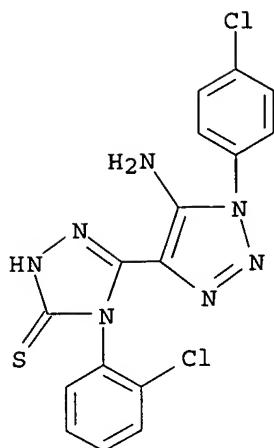
RN 188559-86-6 HCAPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-[5-amino-1-(4-chlorophenyl)-1H-1,2,3-triazol-4-yl]-2,4-dihydro-4-(2-naphthalenyl)- (9CI) (CA INDEX NAME)



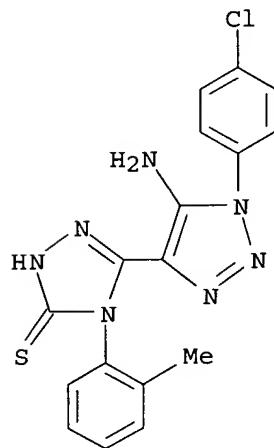
RN 188559-87-7 HCAPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-[5-amino-1-(4-chlorophenyl)-1H-1,2,3-triazol-4-yl]-4-(4-ethoxyphenyl)-2,4-dihydro- (9CI) (CA INDEX NAME)



RN 188559-90-2 HCPLUS

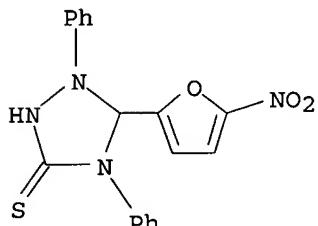
CN 3H-1,2,4-Triazole-3-thione, 5-[5-amino-1-(4-chlorophenyl)-1H-1,2,3-triazol-4-yl]-2,4-dihydro-4-(2-methylphenyl)- (9CI) (CA INDEX NAME)



RN 188559-91-3 HCPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-[5-amino-1-(4-chlorophenyl)-1H-1,2,3-triazol-4-yl]-2,4-dihydro-4-(3-methylphenyl)- (9CI) (CA INDEX NAME)

PUBLISHER: Freund
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Mesoionic 1,4-diphenyl-5-(5-nitro-2-furanyl)-1,3,4-triazolium-2-thiolate was prepared as its hydrochloride by the reaction of 1,4-diphenylthiosemicarbazide with 5-nitro-2-furoyl chloride. The structure was confirmed by elemental anal., IR, mass, ¹H and ¹³C NMR spectra. Pharmacol. tests in vitro showed that the compound possesses spasmolytic action in the guinea-pig trachea and the rat uterus, but not in the guinea-pig ileum.
 IT 187875-14-5P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation and spasmolytic activity of diphenylnitrofuranyltriazoliumthiolate)
 RN 187875-14-5 HCAPLUS
 CN 1H-1,2,4-Triazolium, 4,5-dihydro-3-(5-nitro-2-furanyl)-2,4-diphenyl-5-thioxo-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L22 ANSWER 17 OF 50 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1997:42600 HCAPLUS
 DOCUMENT NUMBER: 126:186026
 TITLE: Synthesis and biological studies of bis-heterocycles
 AUTHOR(S): Kudari, S. M.; Beede, S. M.; Munera, Wahaja
 CORPORATE SOURCE: Dep. Chem., Gulbarga Univ., Gulbarga, 585 106, India
 SOURCE: Asian Journal of Chemistry (1997), 9(1), 20-26
 CODEN: AJCHEW; ISSN: 0970-7077
 PUBLISHER: Asian Journal of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 18 OF 50 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1996:161585 HCAPLUS
 DOCUMENT NUMBER: 124:220521
 TITLE: Cytoprotection utilizing aryltriazol-3-thiones
 INVENTOR(S): Connor, David T.; Plummer, Janet S.
 PATENT ASSIGNEE(S): Warner-Lambert Co., USA
 SOURCE: U.S., 7 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

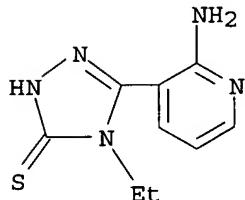
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 5489598	A	19960206	US 1994-255597	19940608 <-
PRIORITY APPLN. INFO.:			US 1994-255597	19940608

OTHER SOURCE(S): MARPAT 124:220521
 AB 5-Aryltriazol-3-thiones are useful for inhibiting adhesion of Mac-1 to the endothelium and thereby providing cytoprotection for diseases mediated by Mac-1 adhesion, such as nonsteroidal anti-inflammatory drug-induced gastritis, inflammatory bowel disease, and ulcerative colitis. The compds. were prepared and evaluated for inhibitory activity against Mac-1 adhesion in in vitro and in vivo models. For example, 5-(2-amino-5-chlorophenyl)-4-ethyl-2,4-dihydro-[1,2,4]triazol-3-thione inhibited the adhesion of Mac-1 to keyhole limpet hemocyanin-coated plates in vitro and prevented the aspirin-induced gastric damage in rats.

IT 174573-81-0P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (aryltriazol-3-thiones for inhibition of Mac-1 adhesion to endothelial cells for treatment of gastritis and colitis)

RN 174573-81-0 HCAPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-(2-amino-3-pyridinyl)-4-ethyl-2,4-dihydro- (9CI) (CA INDEX NAME)



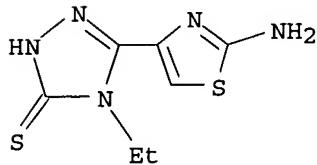
L22 ANSWER 19 OF 50 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1994:557485 HCAPLUS
 DOCUMENT NUMBER: 121:157485
 TITLE: Synthesis of some 2-(substituted thio)pyridines and thieno[2,3-b]pyridines
 AUTHOR(S): Abdel-Monem, Maisa I.
 CORPORATE SOURCE: Fac. Sci., Assiut Univ., Assiut, 71516, Egypt
 SOURCE: Collection of Czechoslovak Chemical Communications (1994), 59(4), 978-86
 CODEN: CCCCAK; ISSN: 0010-0765

157521-76-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and antibacterial and antitumor activities of, structure in
relation to)

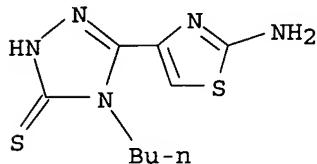
RN 157521-62-5 HCAPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-(2-amino-4-thiazolyl)-4-ethyl-2,4-dihydro-
(9CI) (CA INDEX NAME)



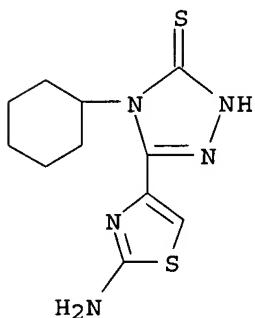
RN 157521-63-6 HCAPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-(2-amino-4-thiazolyl)-4-butyl-2,4-dihydro-
(9CI) (CA INDEX NAME)



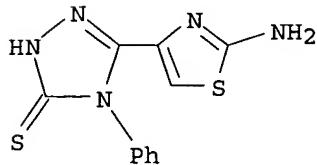
RN 157521-64-7 HCAPLUS

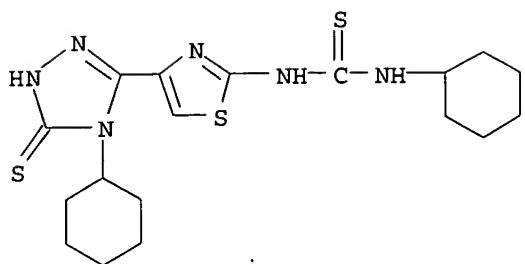
CN 3H-1,2,4-Triazole-3-thione, 5-(2-amino-4-thiazolyl)-4-cyclohexyl-2,4-
dihydro- (9CI) (CA INDEX NAME)



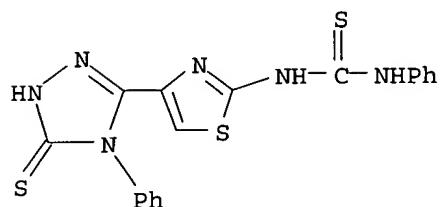
RN 157521-65-8 HCAPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-(2-amino-4-thiazolyl)-2,4-dihydro-4-phenyl-
(9CI) (CA INDEX NAME)

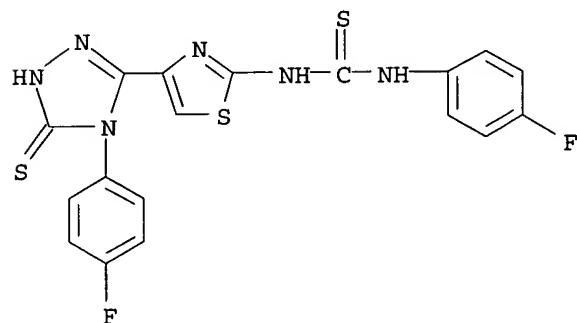




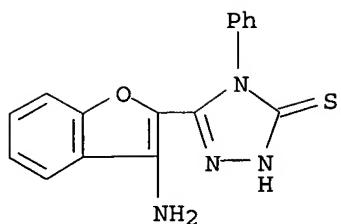
RN 157521-75-0 HCPLUS
 CN Thiourea, N-[4-(4,5-dihydro-4-phenyl-5-thioxo-1H-1,2,4-triazol-3-yl)-2-thiazolyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 157521-76-1 HCPLUS
 CN Thiourea, N-(4-fluorophenyl)-N'-(4-(4-fluorophenyl)-4,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-2-thiazolyl- (9CI) (CA INDEX NAME)

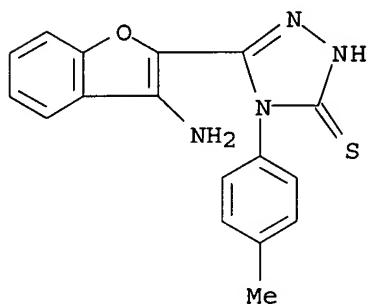


L22 ANSWER 21 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1993:22188 HCPLUS
 DOCUMENT NUMBER: 118:22188
 TITLE: Synthesis of 1,3,4-oxadiazolyl, thiadiazolyl and 1,2,4-triazolyl-3-aminobenzofurans and related compounds
 AUTHOR(S): Basavaraja, K. M.; Vaidya, V. P.; Sangapure, S. S.; Agasimundin, Y. S.
 CORPORATE SOURCE: Dep. Chem., Gulbarga Univ., Gulbarga, 585 106, India
 SOURCE: Indian Journal of Heterocyclic Chemistry (1992), 2(1), 35-40
 CODEN: IJCHEI; ISSN: 0971-1627
 DOCUMENT TYPE: Journal
 LANGUAGE: English



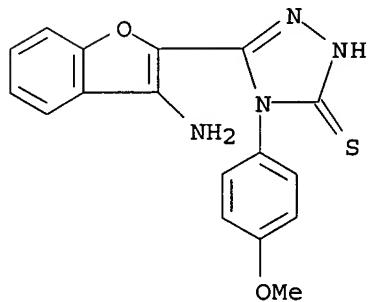
RN 144990-19-2 HCAPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-(3-amino-2-benzofuranyl)-2,4-dihydro-4-(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 144990-20-5 HCAPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-(3-amino-2-benzofuranyl)-2,4-dihydro-4-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

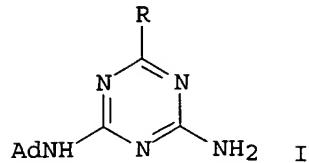


RN 144990-21-6 HCAPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-(3-amino-2-benzofuranyl)-4-(4-chlorophenyl)-2,4-dihydro- (9CI) (CA INDEX NAME)

OTHER SOURCE(S) :
GI

CASREACT 117:69834

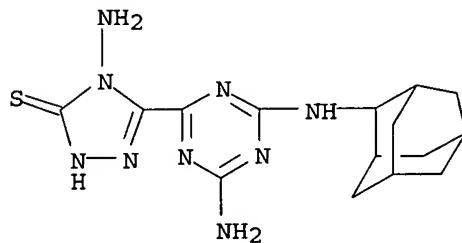


AB (Adamantylamino)triazines I [Ad = 2-adamantyl, R = CONHNHC(Z)NHR1 (Z = O, R1 = Pr, Ph; Z = S, R1 = alkyl, aryl, Ad)] and their cyclization products I (R = 4-R1-substituted-5-hydroxy(or mercapto)-1,2,4-triazol-3-yl) were prepared from hydrazide I (R = CONHNH2) and iso(thio)cyanates RNCZ. Cyclocondensation reactions were also carried out between the hydrazide and CS2 or CS2-N2H4-HCO2Et to give I (R = 5-mercaptop-1,3,4-oxadiazol-2-yl) and I (R = 1,2,4-triazolo[5,4-b]-1,3,4-thiadiazol-3-yl), resp.

IT **142530-46-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and cyclocondensation of, with formate)

RN 142530-46-9 HCAPLUS

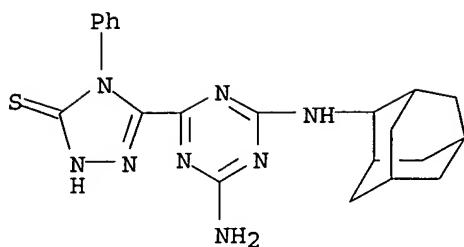
CN 3H-1,2,4-Triazole-3-thione, 4-amino-5-[4-amino-6-(tricyclo[3.3.1.13,7]dec-2-ylamino)-1,3,5-triazin-2-yl]-2,4-dihydro- (9CI) (CA INDEX NAME)



IT **142530-35-6P 142530-36-7P 142530-37-8P**
142530-38-9P 142530-39-0P 142530-40-3P
142530-41-4P 142530-42-5P 142530-43-6P
142530-44-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

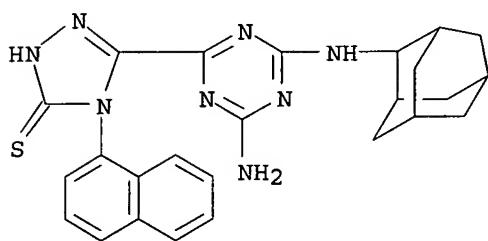
RN 142530-35-6 HCAPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-[4-amino-6-(tricyclo[3.3.1.13,7]dec-2-ylamino)-1,3,5-triazin-2-yl]-2,4-dihydro-4-methyl- (9CI) (CA INDEX NAME)



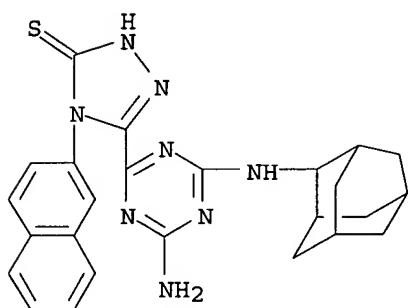
RN 142530-39-0 HCAPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-[4-amino-6-(tricyclo[3.3.1.13,7]dec-2-ylamino)-1,3,5-triazin-2-yl]-2,4-dihydro-4-(1-naphthalenyl)- (9CI) (CA INDEX NAME)



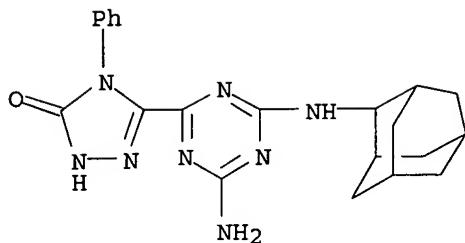
RN 142530-40-3 HCAPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-[4-amino-6-(tricyclo[3.3.1.13,7]dec-2-ylamino)-1,3,5-triazin-2-yl]-2,4-dihydro-4-(2-naphthalenyl)- (9CI) (CA INDEX NAME)



RN 142530-41-4 HCAPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-[4-amino-6-(tricyclo[3.3.1.13,7]dec-2-ylamino)-1,3,5-triazin-2-yl]-4-(4-fluorophenyl)-2,4-dihydro- (9CI) (CA INDEX NAME)



L22 ANSWER 23 OF 50 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1992:59325 HCAPLUS

DOCUMENT NUMBER: 116:59325

TITLE: Synthesis and characterization of 1,2,4-triazolo[4,3-a]quinoxalines and 1,2,4-triazolo-s-triazines as potential antimicrobial agents

AUTHOR(S): El-Kerdawy, M.; Tantawy, A.; Gad, L. M.; Rady, E.

CORPORATE SOURCE: Fac. Pharm., Univ. Mansoura, Mansoura, Egypt

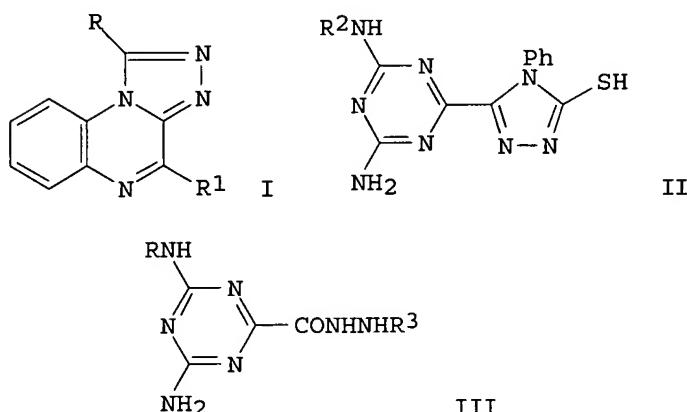
SOURCE: Zhonghua Yaoxue Zazhi (1991), 43(5), 355-64

CODEN: CYHCEX; ISSN: 1016-1015

DOCUMENT TYPE: Journal

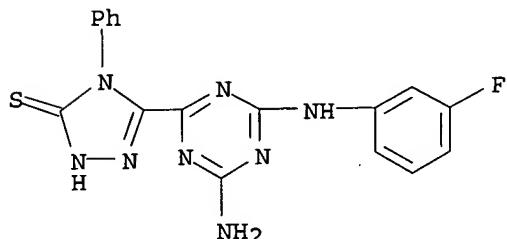
LANGUAGE: English

GI

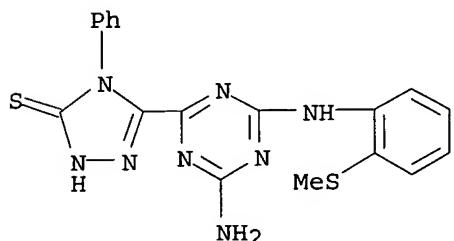


AB Several triazoloquinoxalines were synthesized via a series of reactions. Condensation of 2-chloro-3-hydrazinoquinoxaline with different aromatic aldehydes gave the corresponding hydrazones, which were directly cyclized to 4-chloro-1-aryl-1,2,4-triazolo[4,3-a]quinoxalines I (R = 4-BrC₆H₄, 2-ClC₆H₄, 4-ClC₆H₄; R₁ = Cl) in bromine/acetic acid. Subsequent displacement of the very reactive chloro substituent by a variety of nucleophiles was performed to yield 4-alkoxy and 4-substituted amino derivs. I (R₁ = OMe, OEt, morpholino, piperidino). Several s-triazole derivs. II (R₂ = 2-FC₆H₄, 2-MeSC₆H₄, 2-MeOC₆H₄) were prepared through the cyclization of the corresponding 4-amino-6-substituted anilino-s-triazine-2-carboxyhydrazides III (R₃ = H) using Ph isothiocyanate in alkaline medium, or by refluxing 1-phenyl-4-(4-amino-6-

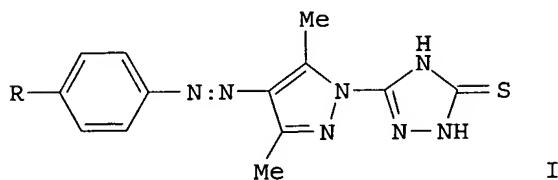
RN 138679-40-0 HCAPLUS
 CN 3H-1,2,4-Triazole-3-thione, 5-[4-amino-6-[(3-fluorophenyl)amino]-1,3,5-triazin-2-yl]-2,4-dihydro-4-phenyl- (9CI) (CA INDEX NAME)



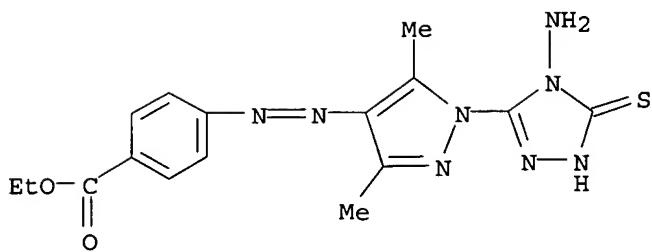
RN 138679-41-1 HCAPLUS
 CN 3H-1,2,4-Triazole-3-thione, 5-[4-amino-6-[[2-(methylthio)phenyl]amino]-1,3,5-triazin-2-yl]-2,4-dihydro-4-phenyl- (9CI) (CA INDEX NAME)



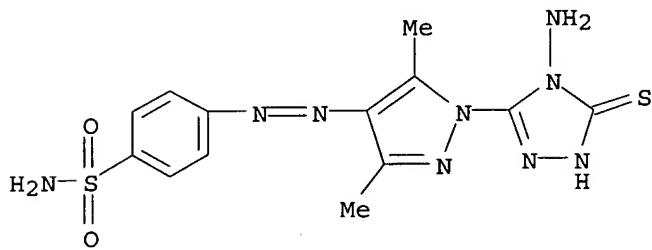
L22 ANSWER 24 OF 50 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1991:247213 HCAPLUS
 DOCUMENT NUMBER: 114:247213
 TITLE: Synthesis and spectrometric analysis of some new azopyrazole substituted 1,2,4-triazole-5-thiones
 AUTHOR(S): Rollas, Sevim; Dogan, Nese; Ulgen, Mert; Ozger, Yasemin
 CORPORATE SOURCE: Eczacihk Fak., Maramara Univ., Istanbul, Turk.
 SOURCE: Marmara Universitesi Eczacilik Dergisi (1990
), 6(1), 41-7
 CODEN: MUEDEZ; ISSN: 1011-3398
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



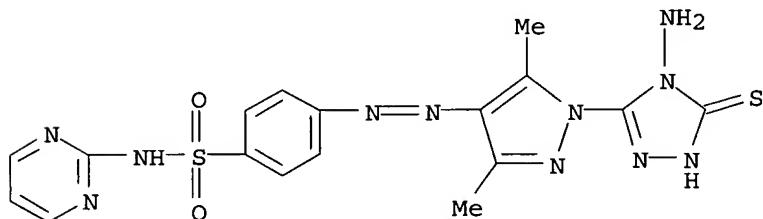
AB Title triazolethione I ($R = H, NO_2, CO_2H, CO_2Et, SO_2NR_1$, $R_1 = H, 4\text{-methyl-2-pyrimidinyl}, 4,6\text{-dimethyl-2-pyrimidinyl}$) were prepared in 51-91%



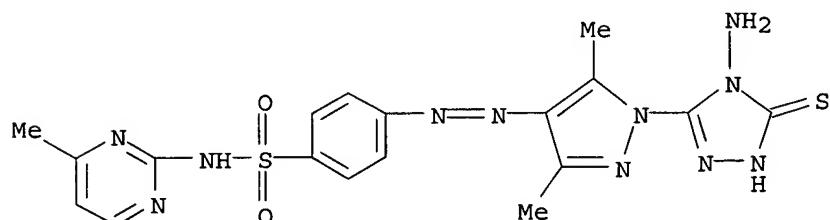
RN 133957-92-3 HCAPLUS
 CN Benzenesulfonamide, 4-[[1-(4-amino-4,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-3,5-dimethyl-1H-pyrazol-4-yl]azo]- (9CI) (CA INDEX NAME)

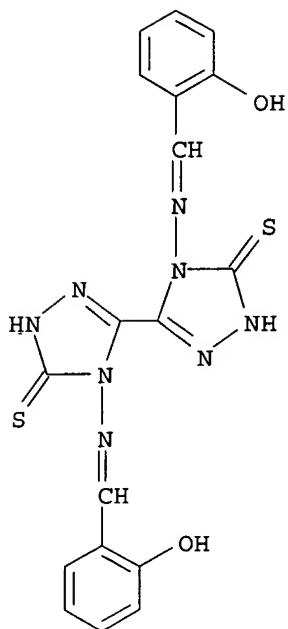


RN 133957-93-4 HCAPLUS
 CN Benzenesulfonamide, 4-[[1-(4-amino-4,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-3,5-dimethyl-1H-pyrazol-4-yl]azo]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

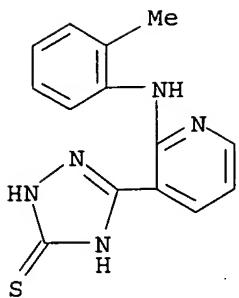


RN 133957-94-5 HCAPLUS
 CN Benzenesulfonamide, 4-[[1-(4-amino-4,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-3,5-dimethyl-1H-pyrazol-4-yl]azo]-N-(4-methyl-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

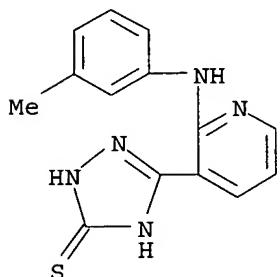




L22 ANSWER 26 OF 50 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1989:192613 HCAPLUS
DOCUMENT NUMBER: 110:192613
TITLE: Some novel 2-substituted amino-3-heteroaryl-pyridines
as potential antimicrobial agents
AUTHOR(S): Abdel-Gawad, Mona; El-Telbany, F. A.; Badran, Mohga;
Ghoneim, Khadiga M.
CORPORATE SOURCE: Fac. Pharm., Cairo Univ., Cairo, Egypt
SOURCE: Egyptian Journal of Pharmaceutical Sciences (1988), 29(1-4), 233-41
CODEN: EJPSBZ; ISSN: 0301-5068
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 110:192613
GI

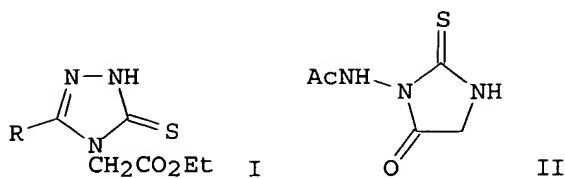


RN 120137-36-2 HCPLUS
 CN 3H-1,2,4-Triazole-3-thione, 1,2-dihydro-5-[2-[(3-methylphenyl)amino]-3-pyridinyl]- (9CI) (CA INDEX NAME)



L22 ANSWER 27 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1988:6027 HCPLUS
 DOCUMENT NUMBER: 108:6027
 TITLE: Preparation of alkyl 5-substituted-3-mercaptop-4H-1,2,4-triazol-4-yl acetates as antiinflammatories and antibiotic intermediates
 INVENTOR(S): Veverka, Miroslav; Marchalin, Miroslav
 PATENT ASSIGNEE(S): Czech.
 SOURCE: Czech., 5 pp.
 CODEN: CZXXA9
 DOCUMENT TYPE: Patent
 LANGUAGE: Slovak
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
CS 234892	B1	19850416	CS 1984-882	19840207 <--
PRIORITY APPLN. INFO.:			CS 1984-882	19840207
OTHER SOURCE(S):	CASREACT	108:6027		
GI				

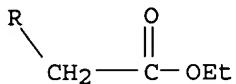
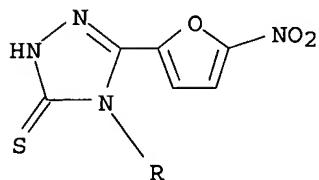


AB Et (3-substituted 5-thioxo-1,2,4-triazolin-4-yl)acetates I (R = e.g. H, Me, Ph, PhCH₂, 2-thienyl) were prepared by addition-cyclization reaction of Et isothiocyanatoacetate with carboxylic acid hydrazides in the presence of NaOEt. Thermal cyclization of the adduct AcNHNHCSNHCH₂CO₂Et in DMF afforded 1-acetamido-2-thiohydantoin II. The effect of substituents on the cyclization course and the thione-thiol tautomerism are discussed.

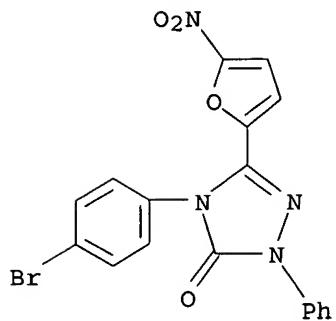
IT 110167-69-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 110167-69-6 HCPLUS

CN 4H-1,2,4-Triazole-4-acetic acid, 1,5-dihydro-3-(5-nitro-2-furanyl)-5-thioxo-, ethyl ester (9CI) (CA INDEX NAME)

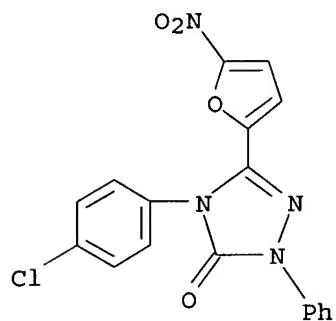


L22 ANSWER 29 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1986:608833 HCPLUS
DOCUMENT NUMBER: 105:208833
TITLE: Oxidation of aldehyde semicarbazones with lead dioxide: application to the syntheses of 2-amino-1,3,4-oxadiazoles and 2,4-dihydro-1,2,4-triazol-3-ones
AUTHOR(S): Thu Huong Nguyen; Milcent, Rene; Barbier, Geo
CORPORATE SOURCE: Fac. Med., Univ. Paris, Paris, 75018, Fr.
SOURCE: Journal of Heterocyclic Chemistry (1985), 22(5), 1383-8
DOCUMENT TYPE: CODEN: JHTCAD; ISSN: 0022-152X
LANGUAGE: Journal
English
OTHER SOURCE(S): CASREACT 105:208833
GI



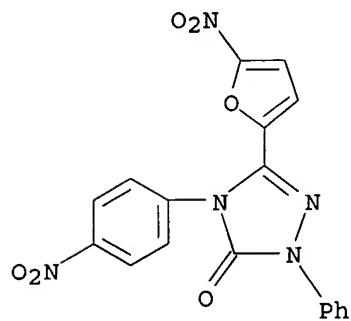
RN 104707-70-2 HCAPLUS

CN 3H-1,2,4-Triazol-3-one, 4-(4-chlorophenyl)-2,4-dihydro-5-(5-nitro-2-furanyl)-2-phenyl- (9CI) (CA INDEX NAME)



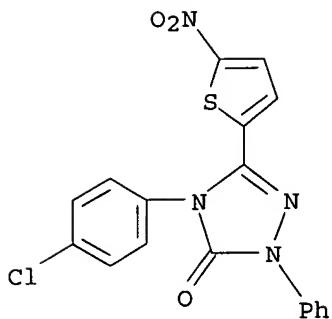
RN 104707-71-3 HCAPLUS

CN 3H-1,2,4-Triazol-3-one, 2,4-dihydro-5-(5-nitro-2-furanyl)-4-(4-nitrophenyl)-2-phenyl- (9CI) (CA INDEX NAME)

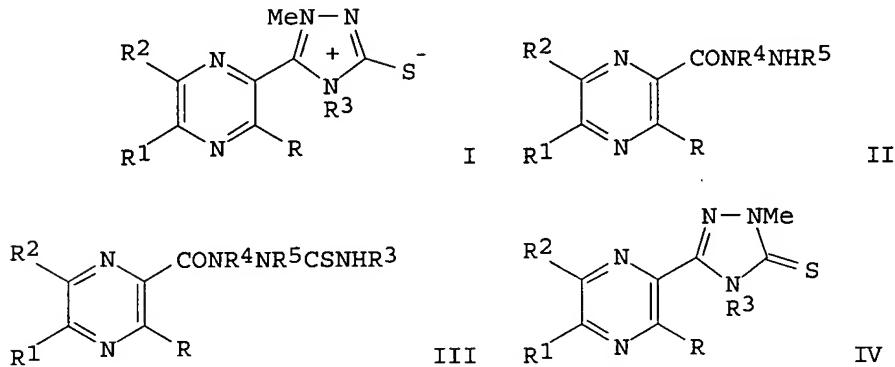


RN 104707-72-4 HCAPLUS

CN 3H-1,2,4-Triazol-3-one, 2,4-dihydro-5-(5-nitro-2-thienyl)-2,4-diphenyl- (9CI) (CA INDEX NAME)

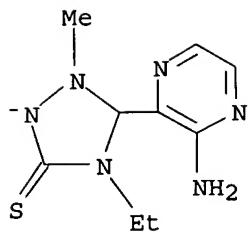


L22 ANSWER 30 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1982:68940 HCPLUS
 DOCUMENT NUMBER: 96:68940
 TITLE: Synthesis of anhydro-3-mercaptop-5-pyrazinyl-1,2,4-triazolium hydroxides
 AUTHOR(S): Shutske, Gregory M.
 CORPORATE SOURCE: Chem. Res. Dep., Hoechst-Roussel Pharm. Inc., Somerville, NJ, 08876, USA
 SOURCE: Journal of Heterocyclic Chemistry (1981), 18(5), 1017-23
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 96:68940
 GI



AB The synthesis of some novel anhydro-3-mercaptop-5-pyrazinyl-1,2,4-triazolium hydroxides (I; R = H, NH₂, NHAc; R₁ = H, NH₂; R₂ = Et, H, Cl; R₃ = alkyl, aryl, etc.) is described. The appropriate 1-methylhydrazides II (R₄ = Me, R₅ = H) were condensed with R₃NCS to give the thiosemicarbazides III which were cyclized to I under mildly basic conditions. A few 1,2,4-triazole-3-thiones IV were synthesized for comparison, starting with the 2-methylhydrazides (II; R₄ = H, R₅ = Me) and then carrying out analogous synthetic transformations.

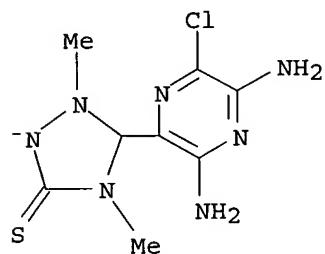
IT 79998-06-4P 79998-07-5P 79998-08-6P
 79998-09-7P 79998-10-0P 79998-14-4P
 79998-15-5P 79998-18-8P 79998-19-9P
 79998-20-2P 80364-55-2P 80364-56-3P



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 79998-10-0 HCPLUS

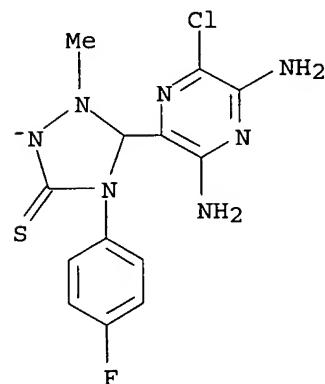
CN 1H-1,2,4-Triazolium, 3-(3,5-diamino-6-chloropyrazinyl)-4,5-dihydro-2,4-dimethyl-5-thioxo-, inner salt (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 79998-14-4 HCPLUS

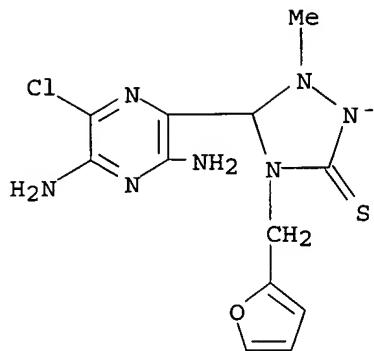
CN 1H-1,2,4-Triazolium, 3-(3,5-diamino-6-chloropyrazinyl)-4-(4-fluorophenyl)-4,5-dihydro-1-methyl-5-thioxo-, inner salt (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 79998-15-5 HCPLUS

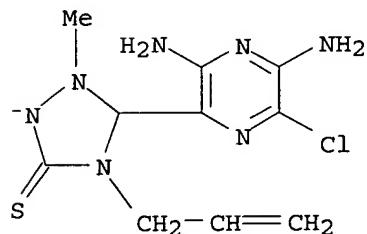
CN 1H-1,2,4-Triazolium, 3-(3,5-diamino-6-chloropyrazinyl)-4,5-dihydro-2-methyl-4-phenyl-5-thioxo-, inner salt (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 80364-56-3 HCPLUS

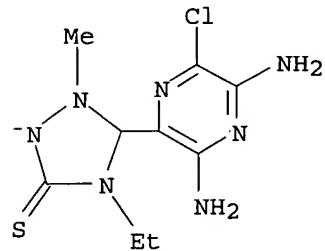
CN 1H-1,2,4-Triazolium, 3-(3,5-diamino-6-chloropyrazinyl)-4,5-dihydro-2-methyl-4-(2-propenyl)-5-thioxo-, inner salt (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 80377-35-1 HCPLUS

CN 1H-1,2,4-Triazolium, 3-(3,5-diamino-6-chloropyrazinyl)-4-ethyl-4,5-dihydro-2-methyl-5-thioxo-, inner salt (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L22 ANSWER 31 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN

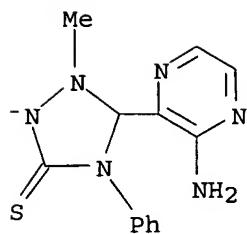
ACCESSION NUMBER: 1981:619467 HCPLUS

DOCUMENT NUMBER: 95:219467

TITLE: ¹³C-NMR spectra of anhydro-3-mercaptop-5-pyrazinyl-1,2,4-triazolium hydroxides

AUTHOR(S): Shutske, Gregory M.; Agnew, Marc N.

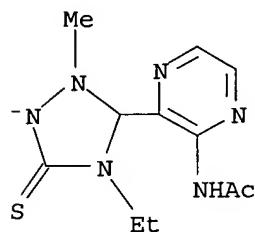
CORPORATE SOURCE: Chem. Res. Dep., Hoechst-Roussel Pharm. Inc.,



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 79998-08-6 HCPLUS

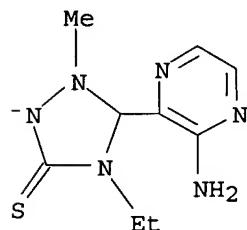
CN 1H-1,2,4-Triazolium, 3-[3-(acetylamino)pyrazinyl]-4-ethyl-4,5-dihydro-2-methyl-5-thioxo-, inner salt (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 79998-09-7 HCPLUS

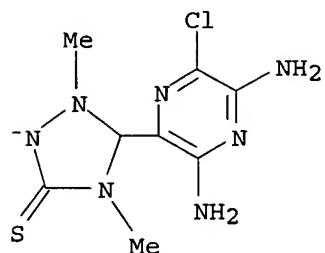
CN 1H-1,2,4-Triazolium, 3-(3-aminopyrazinyl)-4-ethyl-4,5-dihydro-2-methyl-5-thioxo-, inner salt (9CI) (CA INDEX NAME)

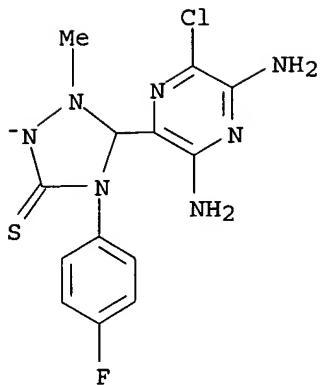


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 79998-10-0 HCPLUS

CN 1H-1,2,4-Triazolium, 3-(3,5-diamino-6-chloropyrazinyl)-4,5-dihydro-2,4-dimethyl-5-thioxo-, inner salt (9CI) (CA INDEX NAME)

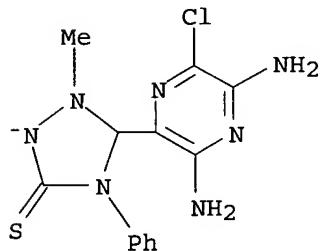




ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 79998-15-5 HCPLUS

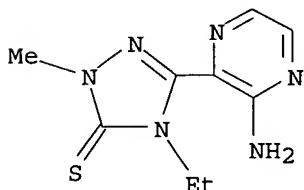
CN 1H-1,2,4-Triazolium, 3-(3,5-diamino-6-chloropyrazinyl)-4,5-dihydro-2-methyl-4-phenyl-5-thioxo-, inner salt (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 79998-18-8 HCPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-(3-aminopyrazinyl)-4-ethyl-2,4-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 79998-19-9 HCPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-(3-aminopyrazinyl)-2,4-dihydro-2-methyl-4-phenyl- (9CI) (CA INDEX NAME)

IT (X = O, S) resp. II (R = 4-ClC₆H₄) showed fungicidal activity at 200 ppm.

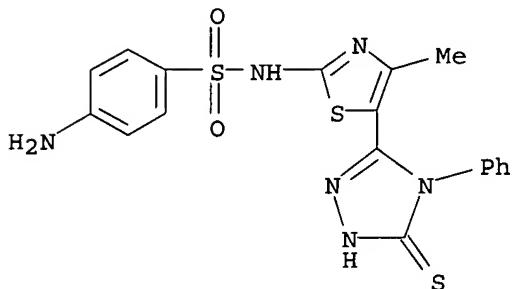
IT 78634-02-3P 78634-06-7P 78634-07-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and fungicidal activity of)

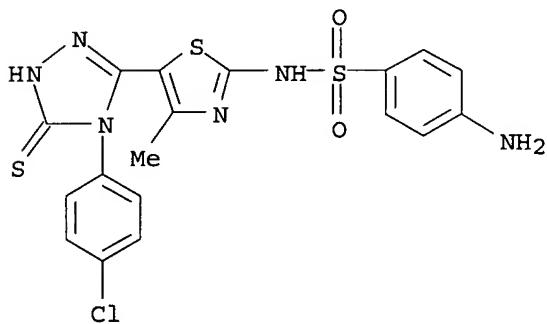
RN 78634-02-3 HCPLUS

CN Benzenesulfonamide, 4-amino-N-[5-(4,5-dihydro-4-phenyl-5-thioxo-1H-1,2,4-triazol-3-yl)-4-methyl-2-thiazolyl]- (9CI) (CA INDEX NAME)



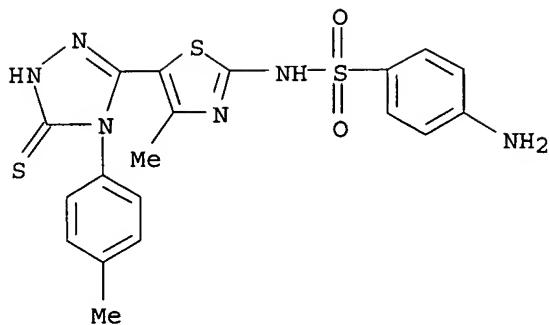
RN 78634-06-7 HCPLUS

CN Benzenesulfonamide, 4-amino-N-[5-[4-(4-chlorophenyl)-4,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl]-4-methyl-2-thiazolyl]- (9CI) (CA INDEX NAME)



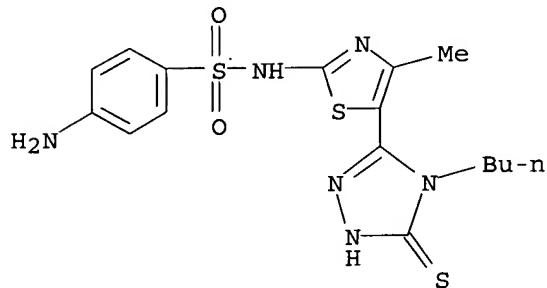
RN 78634-07-8 HCPLUS

CN Benzenesulfonamide, 4-amino-N-[5-[4,5-dihydro-4-(4-methoxyphenyl)-5-thioxo-1H-1,2,4-triazol-3-yl]-4-methyl-2-thiazolyl]- (9CI) (CA INDEX NAME)



RN 78634-08-9 HCPLUS

CN Benzenesulfonamide, 4-amino-N-[5-(4-butyl-4,5-dihydro-5-thioxo-1H-1,2,4-triazol-3-yl)-4-methyl-2-thiazolyl]- (9CI) (CA INDEX NAME)



L22 ANSWER 33 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1979:540850 HCPLUS

DOCUMENT NUMBER: 91:140850

TITLE: 1-(3-Mercapto-4-substituted-1,2,4-triazol-5-yl)-4-substituted-3-thiosemicarbazides

INVENTOR(S): Eberhardt, Udo; Depner, Johannes; Stopsack, Heinz; Oettel, Michael; Huebler, Doris; Chemnitius, Klaus Henning

PATENT ASSIGNEE(S): Ger. Dem. Rep.

SOURCE: Ger. (East), 20 pp.

CODEN: GEXXA8

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

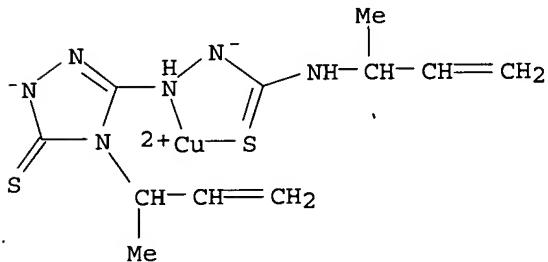
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 133436	Z	19790103	DD 1977-201692	19771026 <--
PRIORITY APPLN. INFO.:			DD 1977-201692	A1 19771026
GI				

RN 71003-46-8 HCAPLUS
 CN Copper, [2-[4,5-dihydro-4-(1-methyl-2-propenyl)-5-thioxo-1H-1,2,4-triazol-3-yl]-N-(1-methyl-2-propenyl)hydrazinecarbothioamidato(2-)]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

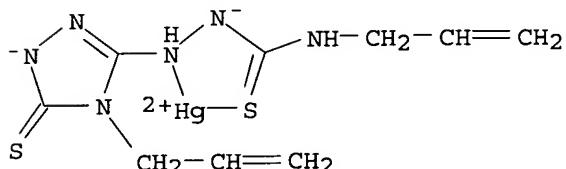
CRN 71003-45-7
 CMF C11 H16 Cu N6 S2
 CCI CCS



RN 71035-18-2 HCAPLUS
 CN Mercury, [2-[4,5-dihydro-4-(2-propenyl)-5-thioxo-1H-1,2,4-triazol-3-yl]-N-2-propenylhydrazinecarbothioamidato(2-)]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 71035-17-1
 CMF C9 H12 Hg N6 S2
 CCI CCS

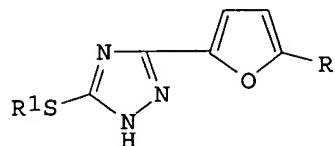


L22 ANSWER 34 OF 50 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1977:502330 HCAPLUS
 DOCUMENT NUMBER: 87:102330
 TITLE: Substituted 5-nitroimidazoles
 INVENTOR(S): Asato, Goro; Berkelhammer, Gerald; Gastrock, William Henry
 PATENT ASSIGNEE(S): American Cyanamid Co., USA
 SOURCE: U.S., 11 pp. Division of U.S. 3,940,411.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DOCUMENT TYPE:
LANGUAGE:
GI

Conference
Russian

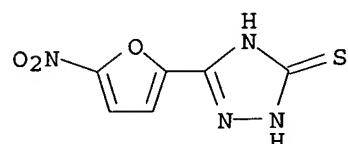


AB Nitration of I ($R = R1 = H$) (II) with HNO_3 -Ac₂O gave I ($R = NO_2$, $R1 = H$). Treatment of II with furfuryl chloride gave I ($R = H$, $R1 = \text{furfuryl}$) which was nitrated to give I ($R = NO_2$, $R1 = \text{nitrofurfuryl}$).

IT 57672-16-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with furfuryl chloride)

RN 57672-16-9 HCPLUS

CN 3H-1,2,4-Triazole-3-thione, 1,2-dihydro-5-(5-nitro-2-furanyl)- (9CI) (CA INDEX NAME)



L22 ANSWER 36 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1977:29722 HCPLUS

DOCUMENT NUMBER: 86:29722

TITLE: Nitrofuranyl heterocycles. XIII.

N-Methyl-3-methylthio-5-(5-nitro-2-furanyl)-1H-1,2,4-triazoles

AUTHOR(S): Benjamin, Louis E.; Snyder, Harry R., Jr.

CORPORATE SOURCE: Norwich Pharmacal Co. Div., Morton-Norwich Prod., Inc., Norwich, NY, USA

SOURCE: Journal of Heterocyclic Chemistry (1976), 13 (5), 1115-18

CODEN: JHTCAD; ISSN: 0022-152X

DOCUMENT TYPE: Journal

LANGUAGE: English

GI

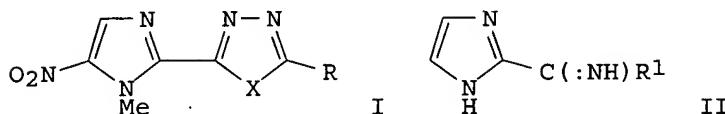
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3940411	A	19760224	US 1973-409505	19731025 <--
US 3649638	A	19720314	US 1969-863378	19691002 <--
AT 292692	B	19710910	AT 1969-9579	19691010 <--
FR 2020451	A5	19700710	FR 1969-35003	19691013 <--
FR 2020451	B1	19740111		
US 3790589	A	19740205	US 1971-202568	19711126 <--
US 4026903	A	19770531	US 1975-632941	19751118 <--
PRIORITY APPLN. INFO.:			US 1968-766984	A2 19681011
			US 1969-863378	A3 19691002
			US 1971-202568	A3 19711126
			US 1973-409505	A3 19731025

GI

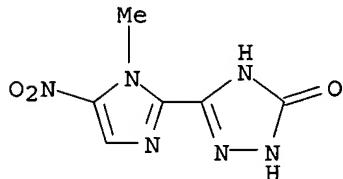


AB The imidazoles I (R = Me, H₂N, X = NH; R = H₂N, X = O, S) were prepared. Thus, II (R₁ = EtO) was treated with MeCONHNH₂ to give II (R = MeCONHNH₂), which was cyclized with HOAc to give I (R = Me, X = NH) (III). At 160 mg/kg I (R = H₂N, X = S) cured pullet chicks infected with Escherichia coli. At 200 mg/kg III cleared mice infected with Trichomonas vaginalis.

IT 27344-17-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 27344-17-8 HCPLUS

CN 3H-1,2,4-Triazol-3-one, 1,2-dihydro-5-(1-methyl-5-nitro-1H-imidazol-2-yl)-
(9CI) (CA INDEX NAME)

L22 ANSWER 38 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1976:4868 HCPLUS

DOCUMENT NUMBER: 84:4868

TITLE: 1,2,4-Triazole derivatives

AUTHOR(S): Lipanova, M. D.; Burov, E. V.; Kulikova, L. K.

CORPORATE SOURCE: USSR

SOURCE: Issled. V Obl. Sinteza I Kataliza Organ. Soedinenii (1975) 29

From: Ref. Zh., Khim. 1975, Abstr. No. 16ZH259

DOCUMENT TYPE: Journal

group which can be accommodated at C5 without a complete loss of activity. All of the 5-membered heterocyclic rings showed some activity. Activity was highest when the ring was nonarom. and a 5-membered nonarom. ring was more active than a 6-membered nonarom. ring. None of these derivs. were as active as the compds. with smaller nonannulated groups at position 5.

IT 55470-38-7P

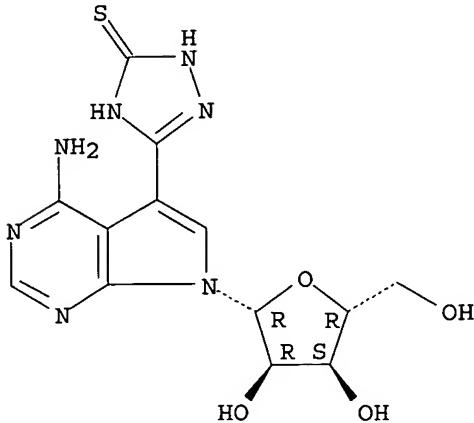
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and neoplasm inhibiting activity of)

RN 55470-38-7 HCPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-(4-amino-7-β-D-ribofuranosyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-1,2-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L22 ANSWER 40 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1974:563330 HCPLUS

DOCUMENT NUMBER: 81:163330

TITLE: Nitrofurans with high renal excretion

AUTHOR(S): Akerblom, Eva B.

CORPORATE SOURCE: Dep. Org. Chem., Pharm. AB, Uppsala, Swed.

SOURCE: Journal of Medicinal Chemistry (1974),

17(7), 756-8

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Of the 16 title compds. tested, those with acidic groups were prepared by reaction of Et haloacetate with the Na salt of the appropriate nitrofuran compound, while those with the nitroamino group were prepared by nitration of the corresponding amino compds. The in vitro antibacterial activity of the new compds. was low, with the esters showing more activity than the acids. Against Trichomonas vaginalis, the esters I [52980-64-0] and II [27550-27-2] show very high activity. II [52980-53-7] and IV [52980-65-1], tested for peroral absorption and urinary excretion in dogs, were >60% recovered in the urine. Urinary excretion was blocked by probenecid, indicating tubular excretion.

IT 52980-62-8

RL: RCT (Reactant); RACT (Reactant or reagent)
(alkylation of)

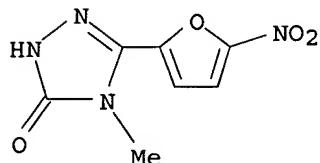
RN 52980-62-8 HCPLUS

CN 3H-1,2,4-Triazol-3-one, 2,4-dihydro-4-methyl-5-(5-nitro-2-furanyl)-,

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation and bactericidal activity of)

RN 41735-59-5 HCPLUS

CN 3H-1,2,4-Triazol-3-one, 2,4-dihydro-4-methyl-5-(5-nitro-2-furanyl)- (9CI)
 (CA INDEX NAME)



L22 ANSWER 42 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1972:564610 HCPLUS

DOCUMENT NUMBER: 77:164610

TITLE: Reactions of 3-hydrazino-1,2,4-triazoles with dicyandiamide

AUTHOR(S): Utteg, Karl Heinz

CORPORATE SOURCE: Bezirksinst. Blutspende- Transfusionswes., Schwerin,
 Ger. Dem. Rep.

SOURCE: Zeitschrift fuer Chemie (1972), 12(8), 291
 CODEN: ZECEAL; ISSN: 0044-2402

DOCUMENT TYPE: Journal

LANGUAGE: German

GI For diagram(s), see printed CA Issue.

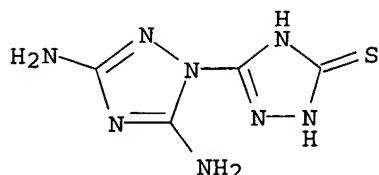
AB Refluxing the triazoles (I, R = H, SH, Ph, o-C₆H₄, o-MeOC₆H₄, o-, m-, p-MeC₆H₄) with H₂NC(:NH)NHCN in HCl-H₂O yielded 36-68 guanazoles (II). Uv spectroscopic data of II were reported.

IT 38767-47-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 38767-47-4 HCPLUS

CN 3H-1,2,4-Triazole-3-thione, 5-(3,5-diamino-1H-1,2,4-triazol-1-yl)- (9CI)
 (CA INDEX NAME)



L22 ANSWER 43 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN

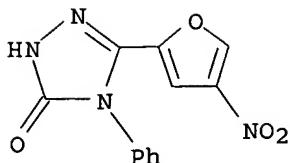
ACCESSION NUMBER: 1972:526568 HCPLUS

DOCUMENT NUMBER: 77:126568

TITLE: Synthesis of pyrazine derivatives as potential hypoglycemic agents

AUTHOR(S): Ambrogi, V.; Bloch, K.; Daturi, S.; Logemann, W.; Parenti, M. A.

CORPORATE SOURCE: Antidiabetic Dep., Carlo Erba Res. Inst., Milan, Italy



L22 ANSWER 45 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1970:425480 HCPLUS

DOCUMENT NUMBER: 73:25480

TITLE: 1,2-Disubstituted 5-nitroimidazoles

INVENTOR(S): Asato, Goro; Berkelhammer, Gerald; Gastrock, William H.; Starer, Ira; Papaioamiou, Christos G.; Albright, Jay D.; Shepherd, Robert G.

PATENT ASSIGNEE(S): American Cyanamid Co.

SOURCE: Ger. Offen., 44 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1951259	A	19700527	DE 1969-1951259	19691010 <--
US 3652555	A	19720328	US 1969-833683	19690616 <--
AT 292692	B	19710910	AT 1969-9579	19691010 <--
FR 2020451	A5	19700710	FR 1969-35003	19691013 <--
FR 2020451	B1	19740111		
PRIORITY APPLN. INFO.:			US 1968-766984	A 19681011
			US 1969-833683	A 19690616

GI For diagram(s), see printed CA Issue.

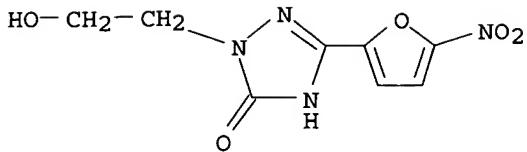
AB The title compds. (I and II), active against chicken typhus, enteritis, colibacillosis, and Trichomonas vaginalis, were prepared. I ($X = NH$) were prepared by treatment of the corresponding Et 5-nitroimidazole-2-carboximides, obtained from 5-nitro-2-cyanoimidazoles (III), with acylhydrazines, $H_2NNHC(:NH)NH_2$, $H_2NNHCONH_2$, or $H_2NNHCSNH_2$. Reaction of the corresponding 5-nitro-2-(chloroformyl)imidazoles with $H_2NNHCONH_2$ or $H_2NNHCSNH_2$ gave I ($X = O$). The following I were prepared (R, R₁, and X given): Me, Ac, NH (Ia); Me, C(:NH)NH₂, NH; Me, CONH₂, NH; Me, CSNH₂, NH; Me, CSNH₂, O; HOCH₂CH₂, CSNH₂, O; Me, CONH₂, O; AcOCH₂CH₂, CSNH₂, NH; and BzOCH₂CH₂, CSNH₂, NH. Cyclization of I gave the following II (R, R₂, and Y given): Me, Me, NH; Me, NH₂, NH; Me, NH₂, S (IIa); Me, NH₂, O; BzOCH₂CH₂, NH₂, S; and HOCH₂CH₂, NH₂, S. II (Y = S) were also directly obtained from III by treating III with $H_2NNHCSNH_2$ in the absence of H₂O and in the presence of a strong acid. Chickens, infected with chicken typhus, were treated with food containing 0.1% Ia or 0.05% IIa. Of 5 chickens all survived, whereas of 20 untreated chickens all died.

IT 27344-17-8P

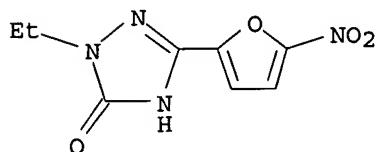
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 27344-17-8 HCPLUS

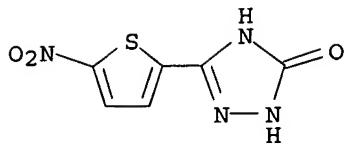
CN 3H-1,2,4-Triazol-3-one, 1,2-dihydro-5-(1-methyl-5-nitro-1H-imidazol-2-yl)-
(9CI) (CA INDEX NAME)



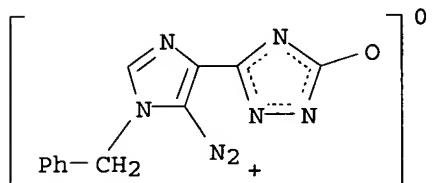
RN 25142-90-9 HCPLUS
 CN 3H-1,2,4-Triazol-3-one, 2-ethyl-2,4-dihydro-5-(5-nitro-2-furyl)- (9CI)
 (CA INDEX NAME)



L22 ANSWER 47 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1969:106436 HCPLUS
 DOCUMENT NUMBER: 70:106436
 TITLE: Heteroaromaticity. XX. Novel thermal 1,3-dipolar cycloaddition of 5-nitrofuran-2-carbohydroxamoyl chloride with diketene and dicyclohexylcarbodiimide
 AUTHOR(S): Sasaki, Tadashi; Yoshioka, Toshiyuki
 CORPORATE SOURCE: Nagoya Univ., Nagoya, Japan
 SOURCE: Bulletin of the Chemical Society of Japan (1969), 42(1), 258-60
 CODEN: BCSJA8; ISSN: 0009-2673
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB 5-Nitrofuran-2-carbohydroxamoyl chloride (I) was heated in toluene with diketene until the evolution of HCl stopped. Spectral data and elemental anal. confirmed that the product was 3-(5-nitro-2-furyl)-5-methylisoxazole, m. 143-4°. I was heated in toluene with an equivalent amount of dicyclohexylcarbodiimide (II) until the evolution of HCl ceased. After removal of the solvent under reduced pressure, the residue was dissolved in CHCl₃ and chromatographed on a silica gel column to give 1,4-dicyclohexyl-3-(5-nitro-2-furyl)-4,5-dihydro-5-oxo-1H-triazole (III). When an ethanolic solution of III was refluxed with EtONa, 1,3-dicyclohexylurea was recovered. Thermal treatment of 5-nitrofuran-2-carboxaldehyde oxime with II and the normal treatment of 5-nitrofuran-2-carbonitrile oxide with II in ether at room temperature both gave 5-nitrofuran-2-carbonitrile and no cyclization occurred. Possible reaction mechanisms were discussed.
 IT 22200-72-2P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 22200-72-2 HCPLUS
 CN A2-1,2,4-Triazolin-5-one, 1,4-dicyclohexyl-3-(5-nitro-2-furyl)- (8CI) (CA INDEX NAME)



L22 ANSWER 49 OF 50 HCPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1967:443155 HCPLUS
 DOCUMENT NUMBER: 67:43155
 TITLE: Diazo- β -azomethine-v-triazine equilibrium
 AUTHOR(S): Temple, Carroll, Jr.; Kussner, Conrad L.; Montgomery, John A.
 CORPORATE SOURCE: Kettering-Meyer Lab., Southern Res. Inst., Birmingham, AL, USA
 SOURCE: Journal of Organic Chemistry (1967), 32(7), 2241-5
 CODEN: JOCEAH; ISSN: 0022-3263
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The nitrosation of some 3-[5- (or 4-)aminoimidazol-4-(or 5-)-yl]-s-triazoles and 5-[5- (or 4-)aminoimidazole-4- (or 5-)-yl]tetrazoles is described. The resulting diazoimidazole-v-triazine systems are used to study the effect of solvent and certain groups on the diazo- β -azomethine-v-triazine equilibrium. Structure assignments are based on data obtained from the ir and proton N.M.R. spectra. 10 references.
 IT 12129-55-4P 13976-26-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 12129-55-4 HCPLUS
 CN Imidazole-5-diazonium, 1-benzyl-4-(5-hydroxy-s-triazol-3-yl)-, hydroxide, inner salt (8CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 13976-26-6 HCPLUS
 CN s-Triazol-3-ol, 5-(5-amino-1-benzylimidazol-4-yl)-, monohydrochloride (8CI) (CA INDEX NAME)

AB New substituted nitrofuryltriazolines, I, where R can be H, Me, Ac, CH₂CH₂OH, or diethoxythiophosphoryl, and R1 can be O, imino (substituted or not), or acetylimino, are used as antiseptics and antiparasitics. Dry HCl is passed through a cooled mixture of 900 g. 5-nitro-2-furonitrile and 5450 cc. anhydrous EtOH for 3.5-4.5 hrs. The solid is filtered off, washed with 150 cc. EtOH, and anhydrous Et₂O to give 808 g. ethyl 5-nitro-2-furimidate-HCl (II), m. 158-60°. A mixture of 100 g. II, 84 g. semicarbazide, and 300 cc. EtOH is heated at 50-5° 30 min. with stirring, cooled, and diluted with 2000 cc. water. The product is filtered off to give 60 g. 5-nitro-2-furamidine-N-ureide (III), m. 274-5°. A solution of 60 g. III in 450 cc. nitrobenzene is refluxed 15 min., cooled, and diluted with 400 cc. Et₂O. The solid is filtered off, washed with Et₂O, and crystallized (water) to give 31 g. 5-oxo-3-(5-nitro-2-furyl)-Δ₂-1,2,4-triazoline, m. 277-9°. II (110 g.) is added to a solution of 55 g. aminoguanidine-HCl in 600 cc. HCONMe₂. The solution is heated at 50-60° 30 min., cooled, and diluted with Et₂O. The oily solid is washed with EtOH and Et₂O, and dried to give 90 g. 5-nitro-2-furamidine-N-guanidine-2HCl (IV), m. 204-5°. A solution of 90 g. IV in 400 cc. nitrobenzene is refluxed 15 min., filtered, cooled, and diluted with Et₂O. The solid is filtered off, washed with Et₂O and dried to give 32 g. 5-imino-3-(5-nitro-2-furyl)-Δ₂-1,2,4-triazoline (V), m. 289-90° (H₂O). A mixture of 110 g. II, 45 g. 2-methylsemicarbazide, and 500 cc. EtOH is heated at 50-60° 1 hr., cooled, and diluted with Et₂O. The solid is filtered off to give 100 g. 5-nitro-2-furamidine-N-(1-methylureide)-HCl (VI), which is treated with Na₂CO₃ to give 5-nitro-2-furamidine-N-(1-methylureide), m. 185-6°. A solution of 100 g. VI in 400 cc. nitrobenzene is refluxed 15 min., cooled, and diluted with Et₂O. The solid is filtered off, and washed with Et₂O, to give 35 g. 1-methyl-5-oxo-3-(5-nitro-2-furyl)-Δ₂-1,2,4-triazoline, m. 275-6° (H₂O). A mixture of 20 g. V, 10 cc. Ac₂O, and 300 cc. anhydrous AcOH is heated on a water bath for 20 min., cooled, and diluted with Et₂O. The solid is filtered off and crystallized (HCONMe₂-water) to give 30 g. 1-acetyl-5-imino-3-(5-nitro-2-furyl)-Δ₂-1,2,4-triazoline (VII). Dry HCl (5.5 g.) is introduced into a solution of 29 g. V in 580 cc. anhydrous AcOH.

The solution is heated 20 hrs., cooled, and diluted with water. The solid is filtered off to give 25 g. 5-acetylimino-3-(5-nitro-2-furyl)-Δ₂-1,2,4-triazoline (VIII), m. 343-5° (HCONMe₂). VII (4.8 g.) is added with stirring to 20 g. benzophenone at 290°. The mixture is heated at 290-5° 2 min., cooled, and diluted with Et₂O, and the solid filtered off to give VIII, m. 343-5° (HCONMe₂). A mixture of 24 g. II, 24 g. 2-(2-hydroxyethyl)semicarbazide, and 300 cc. EtOH is heated at 50-60° 30 min., cooled, and diluted with Et₂O. The solid is filtered off, and dissolved in water. This solution is filtered, alkalized with Na₂CO₃, cooled, and the solid filtered off to give 20 g. 5-nitro-2-furamidine-N-[1-(2-hydroxyethyl)ureide], m. 175-80°, which treated with dry HCl in a suitable solvent gives 5-nitro-2-furamidine-N-[1-(2-hydroxyethyl)ureide]-HCl (IX). A mixture of 144 g. IX and 400 cc. nitrobenzene is refluxed 15 min., filtered, cooled, and diluted with Et₂O. The solid is filtered off and washed with 50% AcOH to give 45 g. 1-(2-hydroxyethyl)-5-oxo-3-(5-nitro-2-furyl)-Δ₂-1,2,4-triazoline, m. 263-4° (AcOH). A mixture of 58.5 g. V, 56.7 g. diethylthionophosphoryl chloride, 16.2 g. NaOMe, and 1200 cc. EtOH is refluxed 30 min., filtered, cooled, and diluted with water. The solid is filtered off to give 29 g. 1-(O,O-diethyl thiophosphate)-5-imino-3-(5-nitro-2-furyl)-Δ₂-1,2,4-triazoline, m. 160-1° (MeOH). A solution of 37.2 g. 1-amino-1-methylguanidine-HCl, and 66.3 g. II in 300 cc. HCONMe₂ is heated at 50-60° 30 min., cooled, and diluted with Et₂O. The gummy precipitate is washed with Et₂O, and dried to give 5-nitro-2-furamidine-

Lambkin 10_678331

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